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Reactions and Responses to Globalization

Globalization, Innovation and Inequalities

Frédérique SACHWALD

Are inequalities growing? Between North and South, or only between the richest and the poorest? Within each country?
This note shows that international inequality with regard to living standards throughout the world has been diminishing since the 1980s, primarily because of the drop in absolute poverty in the developing countries. In the rich countries, growing income equalities and job instability for the low-skilled have eroded their positions in society, even when redistribution has helped to offset inequalities in disposable income. This complex diagnosis explains the widespread yet inaccurate perception that poverty and inequalities have increased overall over the past twenty years.
Although globalization has had a positive impact on the development of a number of poor countries, it has also heightened internal inequalities. Yet it is difficult to differentiate between the influence of globalization and that of innovation-driven competition, which favors skilled workers. This study draws on an analysis of the dynamics of inequalities to suggest that the wealthy countries rethink their policies targeting the unskilled. Improving their professional security can both reduce internal inequalities and, over the long run, curb the protectionism that hampers exports from poor countries.

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Reactions and Responses to Globalization

3 *bis*.

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Frédérique SACHWALD

November 2002
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Reactions and Responses to Globalization

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Frédérique SACHWALD

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Frédérique Sachwald has published numerous articles on globalization and firms' strategies. Her recent publications in English include "Patterns of R&D co-operation by European firms: cost-economizing *vs* technology-seeking" (S. Lundan (ed.), *Network Knowledge in International Business* (Edward Elgar 2002), *Going Multinational. Korea's Experience with Direct Investment* (ed., Routledge 2001), *FDI in Developing Countries: Leveraging the Role of Multinationals* (with S. Perrin, Oslo University, 2002). Forthcoming publications deal with cooperative R&D by French firms and intellectual property rights in the global innovation-led competition.

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Introduction to the series

Reactions and Responses to Globalization

Students of multinational corporations and consultants identified the first signs of globalization back in the 1980s. As national markets became ever more integrated, some experts even went so far as to predict the advent of global firms and the eclipse of the State. Policy-makers, for their part, feared that neoprotectionist trends gathering steam since the 1970s would undermine the internationalization process. These fears were nourished by the difficulties encountered during the Uruguay Round such as trade disputes between the United States, then faced with industrial decline, and Japan, which was experiencing a remarkable economic ascent. Yet the backlash against globalization did not come from governments. At the end of the 1990s, after the World Trade Organization had been set up and many governments of developed and emerging economies had embraced more liberal policies, opposition to globalization developed from a number of groups within society. This backlash stemmed from governments' very acceptance of globalization and from the social tensions caused by growing integration of national economies.

Reactions to globalization vary widely, ranging from proposals to reform international institutions to challenges to more open borders or broader opposition to the market economy. At the international level, several new issues, such as global governance and the need to adapt present institutions or create new ones, have become major items on the political agenda. Yet domestic economic and social reforms seem just as important and urgent when it comes to finding answers to the challenges of globalization and the reactions it provokes.

Race to the bottom or race to the top?

Globalization is often blamed for widening gaps both between and within nations. Some even argue that globalization leads to a “race to the bottom”, with deep cuts in social spending and increased poverty worldwide. Such criticism rejects the argument that removing obstacles to trade allows better allocation of resources between economies, thereby boosting growth and reducing poverty, particularly in developing countries. Activist-led campaigns denouncing “capitalist globalization”_have opened up a far-ranging debate on these fundamental issues which includes the broader public, not just experts.

The analysis of reactions to globalization and policy responses can now build on two major results from research conducted in the 1990s. First is the recognition that there are winners and losers with globalization and that public policies may alter the allocation of benefits and costs between social groups or between nations. Second, globalization interacts with other contemporary economic and social trends. These results contradict both those who see globalization as the solution to the world's problems, and those who use it as an esay scapegoat.

It would therefore be illusory to think that the only measures that can be taken in response to the challenges of globalization relate to the degree of openness of economies and societies to exchanges. In particular, any analysis of the dynamics of globalization emphasizes the complex interactions between growing economic integration, the level of competition and the speed of technological progress. Trade-restricting policies could, for example, have a negative impact on the dynamics of innovation. Yet such measures would have only a limited effect on the trends commonly attributed to globalization, since some of these depend just as much on technological dynamics. Debates on labor market trends and working conditions highlight such interactions between globalization and technical change. Thus, the fact that the least qualified workers find themselves worse off – in terms of job security, wages and working conditions – can be explained by the combination of the two responses to tougher competition : the race to cut costs and the race to innovate, which is a race to the top.

The French paradox

France has actively participated in the globalization process. Since the 1980s, the French economy has continued to open up, not only inside Europe but also with respect to the rest of the world, from the United States to Asia. At the end of the 1980s, French firms caught up with their competitors in terms of internationalization. Some of them are among the leading multinationals in their field of activity, including services and high technology. French companies have also entered into international alliances with a view to reinforcing their strategic positions. In more general terms, France has become integrated into the body of technological and cultural exchanges that characterize the globalization era. This integration has been one of the driving forces of the economic and social change under way in France since the 1980s. Thus, over the last twenty years, France has been one of the countries that has taken advantage of globalization. Yet, at times, it has also appeared as one of the bastions of resistance to globalization. This same paradox applies to European integration, which France helped to launch and which has greatly benefited the country, both politically and economically.

This series of "Notes de l'Ifri" examines this French paradox by studying the challenges of globalization and how they prompt specific reactions in France. The "Notes" look at several fundamental themes such as the dynamics of world inequalities, the integration of France into the global economy, employment trends, the transformation of the financial system, and the characteristics of the French backlash against globalization. They form part of an international program that is comparing reactions and responses to globalization in France, Germany and the United States[1]. The interpretation outlined above contributes to the understanding of differences between the three countries. The degree of openness to economic exchanges and the rapidity of this opening do not suffice to explain the reactions to economic and social change. Another factor requiring analysis is the ability of each country to innovate and race to the top.

International comparisons underscore the influence of institutions and national traditions, not only on the domestic impact of globalization, but also on the perception of this impact. Responses to globalization should therefore take specific national characteristics into account, while public policy should aim at adapting the institutions of the market economy rather than at adopting some ideal outside model. Such a perspective reveals that there is still ample leeway in terms of domestic policy, helping us to move away from sterile condemnation of globalization in the name of diversity, and against the imposition of the "American model", which has been so often denounced in France.

Yet States still face a paradox to the extent that, even if their involvement remains necessary, their intervention in the economy and society must take new forms to be effective. In view of the enhanced role and increased mobility of firms, the complexity of technological issues and the demands of civil society, much more debate and negotiation are needed before policy decisions are made. The challenge is particularly crucial for France, where the central role of the State in the economy and in society goes a long ways towards explaining the characteristics of the country's backlash against globalization.

[1] This project has been conducted in cooperation with DGAP (Berlin) and IIE (Washington, D.C.), with the support of the German Marshall Fund of the United States. A series of seminars has been devoted to specific topics, such as employment trends, domestic and international inequalities, the convergence of financial systems, cultural diversity and reactions to globalization from various components of civil society. See the Website www.ifri.org .

Abstract

According to a recent survey, 60% of the French consider that globalization above all translates into increased inequalities between rich countries and poor countries. These opinions reflect the common wisdom according to which inequalities and poverty have increased in the context of globalization. The media and NGOs often give examples of the extreme poverty that exists in Africa. International organizations in charge of development issues or some political leaders underscore the growing gap between the poorest and the richest. However, a close look at the data for overall world population gives a more complex and more positive picture of the global situation.

Statistical studies show first of all that absolute poverty has been receding since the 1980s and is concentrated in regions isolated from international trade flows, particularly in Africa. Observations of inequalities are based on the calculation of indicators such as the Gini coefficient to evaluate trends with regard to income gaps between countries and between individuals. Many studies show that international inequality of living standards between populations in all countries of the world has not only ceased to grow but has diminished since the 1980s. Life expectancy has increased more rapidly in the developing countries than in the advanced countries, providing another indicator of the reduction in international inequality. Domestic income inequalities have increased in some countries, but since the 1980s, world inequality, an indicator that consolidates international inequality and domestic inequalities, has diminished.

Schematically speaking, the rich countries have become richer and the poor ones less poor, but the level of international inequality remains high. Moreover, in the North, higher income inequalities and job instability for the low-skilled have led to growing economic insecurity, even when redistribution policies have managed to check the growth in disposable income inequalities – as in France. This complex diagnosis explains the broadly held yet inaccurate perception that poverty and inequalities have increased overall since the 1980s.

Is globalization responsible for this growth in inequalities? For the convergence process experienced by certain developing countries, such as China and India? For the stagnation of many African countries? For the more precarious status of low-skilled workers in the industrialized countries? Both historical experience and recent economic studies point to a qualified answer here as well. The paper emphasizes more particularly three points which make it possible to put forward recommendations with regard to public policy. First, although greater

openness in terms of trade is not sufficient to ensure that the poor countries catch up, it opens up opportunities which remain out of reach for countries that are closed off. This “Note” underlines the importance of the second recommendation : in industrialized and developing countries alike, reducing poverty and inequalities primarily depends on national policies, even in countries which are very open to international trade. Third, the increasingly precarious status of non-skilled workers is determined at least as much as innovation-based competition as it is by globalization and competition from low-wage countries.

The experience of the continental European countries in the 19th Century and that of countries which started to catch up in the 20th Century suggest that participation in flows involving exchanges of goods, capital, persons and ideas can further the development process. This virtuous circle nevertheless presupposes two conditions. The first is that greater openness must be accompanied by domestic policies, particularly with regard to education and institutional reforms, which pose a real challenge for the poorest countries, where governments are often shaky. The second condition concerns the policies of the rich countries: they must help the developing countries become integrated into trade flows and thus shun protectionist measures which on the contrary hinder such integration.

There is an urgent need for genuine liberalization of access to markets for textiles and agricultural products in the rich countries, a goal that has been set but not yet reached. The damage done by massive agricultural subsidies in the rich countries is regularly underscored, yet the prospects for change in this area still appear limited. Thought could also be given to how the North could open up more to immigration from the South. Historical experience, as opposed reactions to globalization, emphasizes that such openness is supposed to be accompanied by steps that reduce adjustment costs for "the losers from globalization".

The aim is to promote a process of *sustainable innovation*, which implies adjusting not only the national production and innovation system but also the social system in response to the dynamics of inequalities. The experience of the Scandinavian countries suggests that appropriate education and training efforts play a fundamental role in the dissemination of technological and organizational innovations, making it possible to limit inequalities in the face of change. These policies are aimed at ensuring greater professional security for the low-skilled, which enhances their professional mobility and enables them to participate fully in the structural changes underway in advanced countries. Consequently, the path of change and sustainable innovation is opposed to the Malthusian solution of protectionism, where inequalities in the North hinder the development of the South.

Introduction

The question of inequalities has become a major issue in the debate on globalization. Some see a need to stop opening up national economies because the extension of international markets leads to the triumph of a ruthless capitalist system, where a "race to the bottom" results in growing inequalities. Others consider on the contrary that globalization stimulates growth and innovation, thereby promoting development, curbing poverty and, over the long run, reducing inequalities. This fundamental debate is often based on imprecise definitions and examples, giving the impression that poverty and inequalities have increased worldwide. Such a perception is largely based on the comparison, often taken up in the media, between the poorest and the wealthiest countries. According to a recent survey, 60% of the French consider that globalization above all translates into an increase in inequalities between rich countries and poor countries, and 19% by more inequalities in the rich countries[2]. This paper identifies more precisely the "winners" and the "losers" from the economic transformations under way and challenges the common perception of increasing inequalities. It also shows that globalization is not the key factor explaining the dynamics of inequalities.

Attempts to measure income inequalities must distinguish between *international inequality*, between countries, and the inequality between citizens of a given country, which is generally smaller and evolves depending on different factors. Likewise, domestic inequalities may develop differently in rich countries and poor countries. When they factor these distinctions in, economic studies indicate that the world is in a growth process that reduces the scope of poverty in the developing countries but does not benefit everyone alike. Although rich countries have become richer, poor countries have become less poor. In particular, the group of countries which have embarked on a catching-up process has grown since the 1980s, and now includes countries with much larger populations. A look at life expectancy points to a more pronounced reduction of international inequality given that the poorest countries are also concerned. Domestic income inequalities have on the contrary increased in some countries since the 1980s. The overall diagnosis is therefore qualified, but according to various studies, *world inequality*, the consolidated indicator of domestic and international inequalities, has been diminishing since the 1980s. Worldwide improvement has thus been accompanied by an increase in national inequalities, particularly in the industrialized countries. Reactions against internationalization at the end of the 19th Century and the present reactions against globalization suggest that increasing domestic inequalities in the most advanced countries constitute a major political

[2] CSA opinion poll, 24-25 Sept. 2002 (www.csa-tmo.fr). The question had to do with the main images conjured up by the world "globalization". French seems to have a more gloomy opinion than other countries, especially the US, on the role of globalization for developing countries (see for example Worldviews latest survey, www.worldviews.org).

issue, not only nationally but internationally as well. It is therefore important to assess to what extent poverty reduction on the one hand and the increase in domestic inequalities on the other hand are due to the process of globalization.

Globalization is a process of growing integration of national economies within a vast global market, where goods, services, financial flows and people move increasingly freely. As in Europe, this integration is determined by the liberalization of various types of exchanges, stimulating innovation and the geofigureical redistribution of activities. Globalization therefore expands the process of *creative destruction* worldwide. As such, it is one of the factors in the dynamics of inequalities, which may be interpreted as the other side of the economic, social and cultural changes at work in contemporary societies. The challenge is not to seek protection from these changes, but rather to ensure that they benefit the greater possible number. Consequently, policies to combat inequalities must help to integrate the poorest and the least qualified in the growth process, both nationally and internationally. The conclusion stresses in particular that, in the context of globalization, the rich countries' policies towards the low-skilled must be designed to ensure that the former enjoy dynamic professional security rather than protecting them from the poor countries' competition and from innovation. Analyzing the interactions between globalization, poverty and inequalities lets us transcend the sterile opposition between economists, who tend to consider that distribution-related issues may be separated from growth and efficiency-related questions, and anti-globalists, who view these questions as primary without taking into consideration the many factors that influence changes in inequalities.

Catching-up, international inequality and world inequality

Globalization considerably increases information and facilitates comparisons between extremely diverse human experiences. In this context, the persistence of situations of extreme poverty in certain regions may overshadow the fact that numerous populations experience fast-growth, thereby helping to reduce international income inequality. A look at human development indicators also shows a reduction in inequality between poor countries and rich countries, despite the dramatic health situations in certain regions.

Income inequalities

Over the past forty years, real per capita income has increased by a factor of 2.3 worldwide (table 1). Growth has been stronger in the developing countries than in the industrialized countries, a trend which has been even more pronounced since the 1980s. Yet there are enormous disparities within the developing countries, given that real income for an Asian has tripled since 1980 while an African's income has fallen by nearly 15%. Table 1 shows that even though some developing countries have started to catch up, others have lost ground when compared with the rich countries. The countries of Latin America and Africa have posted lower per capita growth rates than the rich countries and have thus become poorer in relative terms. Although this trend has worsened since the 1980s, in fact it dates back to the 1960s. The Eastern European countries have recently lost ground owing to transition-related difficulties. The situation of the African countries remains the most worrying, because they have the lowest incomes and practically no growth.

Table 1. Income and Income Growth per Capita,
1960-2001

	Income per capita and per day in dollar PPP (1990)			Per capita income in % of the 15 richest countries' per capita income*		
Country/zone	1960	1980	2001	1960	1980	2001
Developing country	3.4	5.9	11.1	13 %	12 %	14 %
Asia	2.2	3.6	10.9	8 %	7 %	14 %
China	1.9	2.7	14.4	7 %	5 %	18 %
India	1.9	2.4	5.2	7 %	5 %	7 %
Indonesia	2.5	5.3	10.3	10 %	10 %	13 %
Vietnam	2.1	2.3	5.8	8 %	5 %	7 %
Sub-Saharan Africa	3.6	4.6	4.0	14 %	9 %	5 %
Latin America	9.9	18	19.8	37 %	35 %	25 %
Argentina	17.2	24.5	23.9	65 %	48 %	30 %
Mexico	11.8	23.5	26.7	44 %	46 %	34 %
Arabic World	7.2	14.5	13.2	27 %	28 %	17 %
Eastern Europe **	10.3	22.6	15.5	39 %	44 %	20 %
Industrialized countries	24.2	45.9	68.0	91 %	90 %	86 %
United States	35.4	57.8	90.1	133 %	113 %	115 %
European Union (15)	22.4	42.8	60.3	84 %	84 %	77 %
World	8.6	14.5	19.9	32 %	28 %	25 %
15 poorest countries in 1960*	1.3	1.9	2.3	5 %	4 %	3 %
15 richest countries in 2001*	2.3	2.3	1.7	9 %	5 %	2 %
15 richest countries in 2001*	26.6	51.1	78.6	100 %	100 %	100 %

* See Appendix 1 for a description of each group of countries.
** Eastern Europe comprises all Center Europe countries, Russia and all ex-Yugoslavia Republics.

Source : Calculations based on the CHELEM's data base.

As a result, the bulk of the increase in income inequalities has been between the poorest countries, primarily located in Africa, and the richest[3]. Comparisons between broader categories, as for example between the poorest 20% and the richest 20% of the planet, point on the contrary to a reduction in income inequalities. In 1960, China's per capita income was lower than that of the group of the 15 countries which became the poorest at the end of the century (table 1). Yet China has become a middle-income country according to the World Bank's ranking. Vietnam, whose income was equivalent to the group of the 15 poorest countries up until 1980, showed income nearly 3.5 times higher in 2001.

Consequently, measuring the evolution of international inequality implies calculating an indicator which takes into consideration income differences between all countries, not only between certain geographical groups[4]. At the international level, there are two different ways to design such an indicator. The first consists of measuring inter-country income differences, each country being assigned the same weight. In this case, Angola weighs the same as China in the comparison. Yet China's rapid growth since the 1980s means that hundreds of millions of individuals have seen their situation improve (table 1). Other very large countries, such as India or Indonesia, have also posted relatively high growth rates over the past twenty years. It therefore seems logical to factor in the size of the different countries. This gives us the second design parameter for the indicator of international inequality, in which average per capita income is weighted according to the population of each country[5].

Figures 1 and 2 show that the two indicators do not give the same picture of trends for inequalities since the 1960s. Inter-country inequality fell through the 1970s before increasing in the 1980s then leveling out after 1994. In 2000-2001, inter-country inequality was back to its mid-1970s level. The figure highlights the fact that income stagnation in the African countries is primarily responsible for the increase in inter-country inequality . The gap between the global indicator and the indicator calculated without Africa widened from the 1960s through the end of the 1980s, then narrowed slightly[6].

[3] More precisely between the poorest 10% and the richest 10% (Melchior 2001). The table underscores the fact that the poorest countries were not the same in 1960 as they were in 2001.
[4] For methodological questions, such as the choice of indicator or exchange rates, see Melchior (2000), Wade (2001), Bhalla (2002), Milanovic (2002) and Sala-i-Martin (2002).
[5] Ghose (2001) elaborates these clear labels to distinguish 'inter-country' inequality from 'international' inequality.
[6] According to Milanovic (2002), the (non weighted) Gini coefficient for the world was 0.53 in 1998, as compared with a mere 0.46 when calculated without Africa.

Figure 1. Income Inequality Among Countries[1], non weighted Gini coefficient.
1960-2001.

1. *This indicator is sensitive to the number of countries that are taken into account since each has the same weight. The sample here is constant and includes 155 pays. USSR has thus been considered as a unified country for all the period. The same indicator with a variable sample, which includes the new countries as they appear, does not exhibit a different evolution, except at the beginning of the 1990s when the number of countries has rapidly increased, resulting in a quicker increase of the indicator.*

Source : Calculations based on the CHELEM's data base.

Unlike figure 1, figure 2 shows a reduction in international inequality from 1980 onwards, which accelerated in the 1990s and has continued after the Asian crisis of 1997. As a result, international inequality was less pronounced in the 1990s than during the 1960s. Several studies have underscored the key role of Chinese growth in explaining this favorable trend[7]. China, a poor country, started to catch up at the end of the 1970s. Its sharp increase in average income and its heavy demographic weight explain why it helped so much to reduce international inequality during the 1980s. Figure 2 shows that this contribution decreased in the 1990s and that the end of the period marked the beginning of a reduction in international inequality for the world excluding China. This trend is due to the recent more rapid growth of poor countries like India. These results come as no surprise: rapid growth in the poor countries makes it possible to reduce international inequality, all the more so if they have large populations.

Figure 2. International Income Inequality, population weighted Gini coefficient.
World without China and India, 1960-2001.

Source : Calculations based on the CHELEM's data base.

Figure 3 illustrates the symmetrical influence of the growth of a large rich country: international inequality decreases more rapidly if the US is excluded from the calculation of the indicator. The sustained growth in the US during the 1990s thus substantially contributed to the level of international inequality.

These various results suggest that international inequality has declined as increasingly numerous populations have embarked on a catching-up process. Conversely, the absence of growth in some poor countries, at a time when some rich countries experienced a period of sustained growth during the 1990s, explains the increase in inequalities between the poorest and the richest countries. Overall, international inequality since the 1980s has been affected by the combination of four trends: the catching-up process of some poor countries, like China; the rapid growth of some rich countries, like the US; the stagnation in many of the least developed countries; and the regression of the Eastern European countries in transition.

Figure 3. International Income Inequality
(population weighted Gini coefficient - World, and without the US),
1960-2001.

Source : Calculations based on the CHELEM's data base.

For twenty years now, the rapid growth of some countries in North and South alike has been accompanied by an increase in domestic inequalities, a phenomenon analyzed in the second part of the paper. This being so, a global diagnosis requires calculating an indicator of *world inequality*, which consolidates changes in international inequality and domestic inequalities. This indicator is calculated on the basis of world income distribution, as if the world were but a single country. It provides a means of measuring changes in the relative situation of the "rich" and "poor" of the world regardless of the average income or size of their country of origin.

Figure 4. World individual inequality (Gini coefficient),
1950-2000

Source : Bhalla (2002).

Figure 4 indicates that the degree of world inequality has decreased since the mid-1970s. The Gini coefficient has fallen from a maximum of 0.693 in 1973 to 0.652 in 2000, *i.e.* the lowest degree of world inequality for the past fifty years (Bhalla 2002). This trend suggests that the reduction of international inequality analyzed above has more than offset the increase in domestic inequalities in some countries. This situation is totally new since the first industrial revolution and internationalization at the end of the 19th Century, when international inequality increased enormously (see box 1).

Estimating world inequality is a complex exercise, which is further complicated by the data problems that researchers encounter. Several studies have proposed estimates which concern a varying number of countries and periods and use different data. The results do not converge, but some conclusions do stand out for the period 1980-2000[8]. It appears notably, as can be seen from figure 4, that the early 1980s and the 1990s were characterized by a declining trend for

[7] *Cf.* Bensidoun *et al.* (2001), Milanovic (2002).
[8] For studies covering at least a couple of years during this period ; see (Bhalla 2002, Milanovic 2002, Sala-i-Martin 2002).

world inequality, whereas such inequality increased in the late 1980s[9]. The various studies do not agree on the level of inequality reached at the end of the 1990s, but lead nevertheless to relatively close estimates- within a 10% range. They show that world inequality has remained high despite the declining trend over the past decade[10].

Inequalities in terms of life expectancy

Monetary income is but one of the indicators of development. Life expectancy, which encompasses many influences on living standards and individuals' health, constitutes a key complementary indicator. Figure 5 indicates that average life expectancy has significantly increased since the 1960s, rising from 55 years to 66.5 years at the end of the 1990s, while differences between countries have diminished considerably during the same period.

Figure 5. World population life expectancy :
average (year) and international inequality[1]

1. Gini coefficient of national average life expectancies.
Source : Melchior, Telle et Wiig (2000).

The reduction in international inequality has been more pronounced for life expectancy than for income. In China for example, life expectancy went from 46 years in 1960, *i.e.* a figure significantly lower than the world average, to 70 years in 2000, a figure higher than the world average. In 2000, average life expectancy in the US was 77 years. Life expectancy has also increased in the poorest countries of Asia and Africa (Maddison 2001). This change is primarily due to the fact that these populations have benefited from certain technological advances, which are spreading gradually. Even in the poor and isolated regions of Africa, for example, immunization campaigns and rehydration methods have reduced infant mortality. Moreover, a decreasing share of the world population is subject to malnutrition[11]. These gains are now jeopardized by the severity of the AIDS epidemic, which has pushed up mortality rates in some countries, especially in Africa. Health care depends on access to innovative drugs, but also on a body of medical and social infrastructures which are lacking in the poorest countries. Furthermore, some African countries have not put in place prevention campaigns which could have checked the spread of the disease.

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[9] The estimates of Milanovic (2002), which are based on different data (household studies), also show an increase between 1988 and 1993, followed by a drop from 1993 to 1998.

[10] With a Gini coefficient ranging from some 0.61 to 0.68 at the end of the 1990s. By way of comparison, the index for Brazil, one of the most inegalitarian countries, was 0.52 in 2000 (down from 0.58 in 1980). The Gini coefficient is over 0.60 in some developing countries in Africa and Latin America (Bhalla 2002).

[11] Between 1980 and the late 1990, the share of the undernourished out of the population of the developing countries has diminished from 29% to 17% (FAO 2001, PNUD 2002).

International trends with regard to life expectancy, or more generally human development[12], lead to two conclusions similar to the ones suggested by the above analysis of income. First, globalization can help reduce inequalities through the dissemination of technologies and know-how. Second, advances with regard to health and life expectancy depend not only on imports of drugs, pesticides and adequate equipment, but also on the local context and national policies.

Opening-up, convergence and divergence

Taking health as an example lets us tackle the more general set of issues concerning the relationship between greater international openness and development. Positive results can be obtained by merely importing new products or equipment, but a genuine development process implies transfers of technology. The success of such transfers presupposes that the recipient countries are indeed able to appropriate and make use of new knowledge. In turn, this capacity for absorption is determined by a set of economic, social and institutional conditions. This is one fundamental reason why opening up to trade and international investments is not enough to ensure growth in poor countries. There are threshold effects, for example in the educational field, which explain why countries with very little human capital derive little benefit from foreign investment for their domestic development process[13].

Openness is not enough to ensure development, but it helps enhance opportunities. The experience of various Asian countries over the past fifty years shows for example that access to technology and to the markets of the richest countries can help accelerate development. Growing internationalization has thus provided a favorable climate for the development of Japan, followed by the emerging Asian countries and, more recently, China and India. The emergence of a large group of "converging" countries is moreover one of the characteristics differentiating the globalization period[14] from the internationalization phase of the 19th Century. During the second half of the 19th Century, internationalization made it easier for certain less developed European countries to catch up with the leaders of the time, but most of the countries of the South remained in a peripheral role of suppliers of agricultural and industrial commodities (box 1). As a result, there was a historic upsurge in international inequality during the 19th Century, between the countries participating in the Industrial Revolution and the others

[12] Since the 1950s, the human development indicator (HDI), which takes income, education and life expectancy into consideration, has also evolved more favorably for the developing countries than income alone (Crafts 2000).

[13] *Cf.* in particular Rodrik (1999), and for a review of literature on the impact of foreign investment, particular with regard to of technology transfers, Sachwald and Perrin (2002).

[14] In a study covering 1981-1997, Ghose (2001) identifies a 'convergence club' of 37 countries out of a total of 96 developing countries.

with weaker growth. The inclusion of a greater number of developing countries in international exchanges during the recent past has taken place in very different conditions, because they have become exporters of manufactured goods in increasingly diversified sectors, including high technology. This in turn has enabled a number of countries to rely on technology transfers from the industrialized countries and on exports of manufactured goods in their development process.

As in the 19th Century, not all poor countries have been equally able to join in the catching-up process and benefit from globalization, which explains how processes of convergence and divergence have coexisted, both between rich and poor countries and within the group of poor countries. The advanced countries particularly benefited from internationalization back in the 1960s, when they liberalized trade in manufactured goods[15] and the volume of North-North trade expanded considerably. The developing countries remained relatively less open to trade and foreign investment, at least up until the period of globalization starting in the 1980s. For various reasons, the least developed countries (LDCs) have remained the least integrated in international trade flows. These countries are also the most specialized in the production of unprocessed commodities, whose share of international trade is diminishing. Based on these observations, it would appear that development and opening-up often go hand in hand, which does not imply causality. Indeed, historical experience shows that in many cases, countries which have reached a certain level of development and skills opt for opening-up. The recent crises in Asia and Latin America also underscore that a country can only derive full benefit from financial liberalization if its financial system is sufficiently sophisticated.

Box 1.

Internationalization, Catching-up and Inequalities in the 19th Century

The spectacular fall in sea and land transport costs, followed by the liberalization of trade during the second half of the 19th Century, led to a boom in international trade. The trade increase should be viewed within the broader context of internationalization, with large movements of capital and populations across the Atlantic in particular. In all, more than 60 million Europeans emigrated to the New World between 1820 and 1914. Accordingly, the late 19th Century was a period of intense internationalization, comparable to the contemporary period of globalization, even though the two movements have their distinguishing characteristics (Jacquet and Sachwald 2000).

The countries of the New World, where land was plentiful, began to export agricultural products to Europe. As a result, the price of such products fell in

Europe and moved closer to the prices of the large agricultural countries of the Americas[1]. Conversely, Europe, where workers' wages were lower than in the United States, exported manufactured goods to the New World. In accordance with the predictions of international trade theory, such exchanges ended up by bringing European wages closer to American wages and, symmetrically, by raising land prices in the US. Consequently, inequalities between workers and land-owners decreased in Europe and increased in the US, Argentina and Australia. Mass immigration at the end of the 19th Century had a similar effect on wage patterns because it significantly increased the number of workers in the US. Symmetrically, the workforce shrank considerably in the high-emigration European countries like Ireland, Norway and Italy. The scope of the migratory flows made them the driving force for wage convergence between the two shores of the Atlantic at the end of the 19th Century (O'Rourke 2001). Symmetrically, the isolation of Spain, which experienced little emigration and only took in small amounts of foreign capital, would explain its poor growth performance (O'Rourke and Williamson 1999).

Growth in the industrializing countries during the 19th Century made it possible to reduce the share of extreme poverty out of world population, which stood at nearly 80% at the dawn of the century (Morrisson 2002). Thus, the world went from a situation where the vast majority of countries were poor to a situation where some overcame this poverty through industrialization. At the same time, international inequality increased sharply (Bourguignon and Morrisson 2002). This historical divergence is due to the fact that the Western countries, which had entered an industrializing phase, recorded faster growth. The poor regions on the periphery, which had not yet reached the industrializing stage, also experienced faster growth, but at lower levels. Consequently, the internationalization of the 19th Century seems to have stimulated growth in both countries undergoing industrialization and on the periphery, without leading to convergence between the two zones. According to historians, it is possible that the internationalization of the 19th Century may have helped to limit further increases in the gap which the industrializing countries had opened up (Jones 2001). In fact, divergence had already appeared well before the 19th Century, while some countries on the periphery had posted relatively high growth rates at the end of the century.

1. Some Asian countries have also increased their agricultural exports to Europe.

[15] The conclusion takes up the question of protectionism in agriculture.

Consequently, interactions between opening-up and growth depend on a set of national economic and policy characteristics. The need to build up the capacity to absorb outside knowledge or to develop solid economic, political and social institutions in order to cope with the shock of opening-up could thus be explained by the fact that the most open poor countries do not seem to have benefited from their integration into international trade in the 1990s, unlike the middle-income countries (Garrett 2001). In fact, the degree of domestic inequalities can itself influence interactions between local characteristics and opening-up, and hence a country's capacity for catching-up[16]. For example, imported technology may circulate less well in very inegalitarian countries, where a large share of the population has no access to sufficient training. The degree of domestic inequalities varies greatly from one country to another, particularly between Asia and Latin America, where it is traditionally very high.

Dynamics of domestic inequalities in North and South

Over the past twenty years, domestic inequalities appear to have increased in a great many countries, but available statistics show diverging trends within both groups of rich and poor countries. The redistribution of activities between the countries of the North and the countries of the South, which has redefined national specialization, has influenced these trends. The consequences of globalization with regard to domestic inequalities appear opposed insofar as the integration of world markets has helped to reduce poverty in some countries of the South while jeopardizing the low-skilled in the countries of the North. However, the deterioration of the relative position of certain groups in the industrialized countries cannot be explained by a single factor, but rather by a combination of factors, in particular the interactions between globalization and innovation.

Opening-up, poverty and inequalities in developing countries

In the 1960s and 1970s, the fact that the countries of South-East Asia opened up to trade both boosted their growth and helped reduce domestic inequalities. Export growth made it possible to increase workers' wages, as was done in some European countries in the 19th Century (see box). In the 1980s, however, liberalization coincided with a widening of the pay gap between skilled workers and unskilled workers in some Latin American countries[17], primarily due to the fact

[16] For a review of recent literature on this topic, see Cogneau and Guénard (2002).
[17] Where the level of inequality between citizens is generally higher than in the Asian countries, globalization not having changed this historical difference.

that these countries liberalized when poorer countries such as China increased their share of world trade.

In developing countries, rapid growth (table 2) has resulted in a reduction of absolute poverty[18] but has been accompanied by growing inequalities in a number of cases. The recent increase in inequalities in China, is due to the fact that export-oriented zones were the first to benefit from greater international openness (Lindert and Williamson 2001). Nevertheless, it appears that city-countryside inequalities are less pronounced in the most open Chinese areas (Wei and Wu 2002). Accordingly, the continuation of the process of opening-up and domestic migration suggest that this increase in inequalities could be temporary. Other elements bear out this optimism, such as the correlation between the rate of openness and school attendance for children.

Table 2. Evolution of Poverty and Income Inequalities in China, 1990-1999

	1990	1995	1999
Population living with less than 1 dollar a day[1], in %			
Rural zones	42.5	30.8	24.9
Towns	1.0	0.6	0.5
Total China	31.5	22.0	17.4
Gini coefficient			
Rural zones	29.8	33.9	33.9
Towns	23.4	28.3	29.7
Total China	34.8	41.5	41.6

1. PPP 1993.
Source : Chen and Wang (2001).

The total number of persons living in absolute poverty began to decline during the 1970s. Estimates, expressed either as number of persons or as a share of world population, vary considerably depending on the study, but there seems to be a clear trend towards a decline in poverty since the 1980s. The share of the absolute poor out of world population is estimated at some 20% by the World Bank (2000), but at less than 10% by some recent studies, which points to a considerable reduction since the 1980s (Bhalla 2002, Sala-I-Martin 2002). However, there

[18] This notion refers to the satisfaction of the individual's basic needs. For international comparisons, two thresholds of absolute poverty are generally used, $1 and $2 per day (in PPA).

are major differences between regions[19]. Poverty rates have fallen the most in East Asia, much less in Africa and practically not at all in Latin America (where they are, however, lower). The Eastern European countries in transition have also experienced a rise in poverty rates, which nevertheless remain at significantly lower levels than in developing countries, with the exception of North Africa and the Middle East.

The role of redistribution policies in rich countries

Inequalities in the OECD countries evolved in a very heterogeneous fashion from the 1980s to the 1990s. During 1975-85, trends for the distribution of available income were clearly unfavorable only for the United Kingdom, the United States and Australia (table 3). Increases in income inequalities were more frequent during the period 1985-1995, but some countries like the US, France and Canada were not affected by this trend. In Australia, Denmark, South Korea and Ireland, inequalities diminished during this period.

Table 3. Evolution of Income Inequalities[1]
between the 1970s and the 1990s

	---	--	-	0	+	+ +	+ + +
Mid-1970s to mid-1980s	Greece	Finland	Canada Japan Mexico Sweden		Holland	Australia United States	United Kingdom
Mid-1980s to mid-1990s			Australia Korea Denmark Hungary Ireland	Austria Canada France Greece United States	Germany Belgian Japan Sweden Swiss	Finland Mexico Norway Holland United Kingdom	Italy Turkey
Mid-1970s to mid-1990s	Greece		Canada Finland	Japan Mexico Sweden	Australia	Holland United States	United Kingdom

Legend

+ 2 to 7% increase
++ 7 to 12%increase
+++ more than 12% increase
0 – 2% to 2% change
--- more than 12% reduction
-- 7 to 12% reduction
- 2 to 7% reduction

1. Labor and capital income, transfers, taxes and social contributions. Results are based on the evolution of Gini coefficients.

[19] UNCTAD's latest report on the least developed countries also shows a reduction in absolute poverty, including in the Asian LDCs, but not for the African group (UNCTAD 2002).

Source : Förster et Pellizzari (2000).

In some countries, particularly in France during the 1990s, it was above all the position of the poorest[20] that worsened. Moreover, in different countries, young people entering working life and single-parent families were the "losers", while pensioners tended to be "winners". These observations underscore the role of sociological change in the dynamics of inequalities, particularly through their impact on family structures.

Public policies have played an important role via the tax system and various redistribution mechanisms. These policies tend to offset the increase in market inequalities, but to varying degrees, depending on the country, and through different mechanisms (Sastre and Trannoy 2001). The role of the tax system for example is particularly pronounced in Norway and weak in the US and France. The redistributive impact of social minima has increased in the majority of countries, but especially in the United Kingdom and the Scandinavian countries. At the same time, the progressiveness of taxes and the volume of social benefits have diminished in the United Kingdom. The fundamental role of redistribution policies may be illustrated by the comparison between the United States and Canada. Whereas income activity inequalities increased in comparable proportions during the 1985-1995 decade, post-redistribution income inequalities fell by nearly 2.5% in Canada while increasing by 4% in the US (Sastre and Trannoy 2001). This implies that Canada, a small country that is wide open to international exchanges, has managed to follow an efficient redistribution policy in an era of globalization.

Even in cases where redistribution policies have been sufficiently adjusted to offset the opening-up of the pay scale, weakened population groups feel an increase in inequalities and a certain marginalization without any prospect of improvement. The slowdown in social mobility, which enables individuals to improve their income during their career, constitutes a new problem in certain rich countries. For example, in France, the reduction in mobility plays an important role in the perception of the increase in inequalities. It draws attention to inequalities of position, which are already traditionally strong in France. Conversely, in the United States, mobility is higher and inequalities of position are viewed as less worrying, including by the poor themselves (Alesina *et al.*, 2001). In this context, redistribution policies are but a partial answer, and it is important to understand the determinants of the evolution of income inequalities in order to design policies that can tackle the problem at its roots.

[20] First decile of income or replacement activities.

Globalization or innovation?

In virtually all OECD countries, income trends constitute a major source of increase in inequalities. In some countries, this increase is due to the opening-up of the pay scale, which can come from the slow progression of the lowest salaries or a sharp increase in the highest salaries. In the United States, the highest incomes have posted very strong growth over the past twenty years (Piketty and Saez 2001). In other countries, rising unemployment and more part-time work are behind the increase in income disparities. In France for example, wage inequalities[21] were less pronounced during the 1990s than in the prosperous France of the 1960s (Atkinson *et al*, 2001). Likewise, over a thirty-year period, poverty has been halved[22]. The scope of unemployment has, however, led to an increase in income disparities. Are these changes due to globalization?

Globalization has often been blamed for the deterioration in the relative position of low-skilled workers in the developed countries, owing to the pressure that imports from low-wage countries exert on their wages. This argument is based on traditional analysis of international trade theory: imports of shoes or consumer electronics from Asia compete with goods manufactured locally and thus indirectly with local labor. To the extent that the low-skilled workers find it hard to change jobs, they may be obliged to accept less pay (in the US) or remain unemployed for long spells (France). However, the impact of imports from low-wage countries seems to have been modest. Conversely, various recent studies suggest that trade between industrialized countries could have had a significant impact.

The many studies and debates both in Europe and the United States suggest that international trade with developing countries has been only one of the factors increasing wage inequalities in the industrialized countries. In the United States for example, trade only accounts for a small part of the more open pay scale, as immigration has been a stronger factor of competition for low-skilled wage-earners. In France, imports from low-wage countries were modest in scale and could only explain a small part of the rise in unemployment in the 1980s and early 1990s. As larger numbers of developing countries have entered export markets, the advanced countries have increasingly specialized in more sophisticated activities, a trend which has boosted demand for skilled labor. In this way, international trade contributes to stimulating demand for skilled labor and reducing demand for low-skilled labor in countries that export high-tech or

[21] Net full-time salaries.
[22] The poverty threshold in France has been fixed at 50% of median available income per household. In 1997, 4.2 million persons were poor, *i.e.* 7.4% of the French population, as against 16% in 1970.

high-quality products. The main influence may however come from trade between industrialized countries rather than from exports from low-wage countries[23].

Various studies have identified technological progress as the driving force behind relative pay changes. The new technologies, which have stimulated the emergence of new sectors and have spread throughout all activities, require increasingly high training levels. Furthermore, in many sectors, the combination of technological change and international competition has led to the adoption of management methods which stress performance incentives through increasingly personalized pay packages. This explains why the highest salaries have tended to increase sharply, not only in the high-tech sectors but also in the majority of activities. Moreover, it would appear that technological progress has become more important in the 1990s. Thus, in the case of France, in the 1970s and 1980s, the drop in employment for skilled labor was primarily due to the reduced demand for traditional industries and the destruction of industrial jobs. In the 1990s, the process of disindustrialization no longer explains more than a residual share of the drop in demand for skilled labor, which is continuing even though the relative cost of low-skilled labor remains stable. On the other hand, the dissemination of information technologies plays a growing role, for it induces a demand for skilled labor (Goux & Maurin, 2001): This inegalitarian effect cannot last any longer than the time it takes for the complete dissemination of these technologies.

All in all, globalization has played a complex and ambiguous role in opening up the pay scale. Tougher international competition stimulates growth and innovation while weakening low-skilled labor’s position as it reinforces the inegalitarian pressure of technological progress. Consequently, the central problem is not that of a "race to the bottom", which has not taken place, but that of innovation-based competition and structural changes as the advanced economies move towards new sectors. The countries which are the farthest along in this process are often also those which, far from reducing social protection, have succeeded in adapting it so as to ensure greater professional security for wage-earners[24]. This is the case in particular for the Scandinavian countries. The capacity of public policy to act on inequalities in the context of globalization has also been illustrated here by the contrast between the two neighbors of the North American continent, the United States and Canada. As Jean Paul Fitoussi et Pierre Rosanvallon wrote in 1996, "the challenge which globalization represents for the welfare State is not in terms of survival but rather in terms of its capacity to accompany social change" (p.

[23] For reviews of recent literature on the topic, see Aussilloux and Benaroya (2001) and Cardebat (2002).

[24] On this topic and on the role which high-quality vocational training can play, particularly in the case of France, see Maurin (2002).

148). Recent trends have confirmed the validity of this diagnosis while underscoring the scope of this challenge, particularly in the case of France.

Conclusion

National and international solidarity

A detailed analysis of changing world inequality challenges the widely held perception of an overall increase in inequalities and poverty in the context of globalization. The gap between perception and measurements can be explained by the complexity of the dynamics of inequalities. The same remark applies to the interactions between globalization, poverty and inequalities. In particular, this paper has stressed that globalization is but one of the factors which impact on the evolution of inequality, both within and between countries.

Changes in international inequality over the past twenty years are due to a combination of four major trends: the catching-up of some populous poor countries, like China and India; the sustained growth of some rich countries, like the United States; the stagnation of the least developed African countries; and the regression of the Eastern European countries in the early stages of transition. The coexistence of these contradictory trends tends to prevent people from realizing that poverty is declining worldwide and that international inequality is diminishing. Trends for domestic inequalities are also complex. Domestic inequalities remain as high in some countries of the South, but growth also benefits the poor there. In the North, inequalities have clearly increased in some countries, but the perception of inequalities has also increased for they have taken on different forms since the 1980s. In France for example, poverty was halved between 1970 and the end of the 1990s, although this favorable change sometimes went unnoticed. This may also be due to the fact that in the 1960s, poverty and exclusion primarily affected rural and aged populations, whereas they now impact on young, urban populations, whose plight is better known. The perception of inequalities is probably also influenced by the growing individualization of career paths, itself linked to a host of structural changes in industrial societies.

Poverty is receding worldwide yet the level of inequalities between countries and poverty remains too high, making it necessary to rethink public policy. Questions concerning aid and international institutions are being broadly debated at present. The analysis of the interactions between globalization and inequalities developed here leads us to underscore the equally important role of national policy, on which the conclusion focuses.

Disparities in the South indicate that at the international level, efforts to combat poverty and inequalities will only succeed once the least developed countries start moving towards a development process. The experience of the continental European countries during the 19th Century, like that of the countries which began to catch up in the 20th Century, suggests that participation in flows of trade, goods, capital and ideas is a favorable factor. Conversely, countries which have remained on the sidelines of trade have not improved the living standards of their population since the 1960s. Consequently, joining the globalization process could help some countries climb out of the poverty trap in which they have been mired for decades. Yet this virtuous circle presupposes two conditions. The first is that greater openness must be accompanied by domestic policies, particularly with regard to education and institutional reforms, the importance of which is now accepted. Nevertheless, these reforms pose a real challenge for the poorest countries, where states are often weak. The second condition concerns the policies of the rich countries: they must help the developing countries join trade flows and thus shun protectionist measures which on the contrary hinder such integration.

There is an urgent need for genuine liberalization of access to markets for textiles and agricultural products in the rich countries which, even though it is on the agenda of the "development cycle" of WTO negotiations, is still a longs ways off. The damage done by massive agricultural subsidies in the rich countries is regularly stressed, yet the prospects for change in this area still appear limited[25]. Thought could also be given as to how the countries of the North could open up more to immigration from the South. In the 19th Century, immigration was a fundamental factor of convergence within the Atlantic economy. Conversely, in the context of globalization, the body of advanced economies take in relatively small proportion of migrants. This protection-seeking attitude reminds us that, owing to its impact on the wages of American workers, massive immigration to the US was one of the factors behind the backlash against internationalization at the end of the 19th Century. Policies of greater openness, whether it be in terms of goods and services or immigration, are supposed to be accompanied by steps that reduce adjustment costs for “the losers in globalization”, *i.e.* low-skilled workers in the rich countries[26].

Competition with low-wage countries accounts for only a small share of heightened job insecurity for the low-skilled and increased inequalities in the developed countries. The reverse

[25] As reflected by difficulties in drawing up a reform plan for the Common Agricultural Policy (CAP) within the European Union.
[26] This reasoning also holds true for farmers in the event of a CAP reform, which would make it possible to open European markets up more.

conviction, which is widely held, comes from the complexity of the dynamics of inequality, and in particular the interactions between innovation and globalization analyzed here.

In this context, national policies to reduce inequalities in the countries of the North can facilitate greater openness of protected markets by taking into account the foreseeable consequences on the low-skilled. The aim is to promote a process of *sustainable innovation*, which implies adjusting not only the national system of production and innovation but also the social-fiscal system in response to the dynamics of inequalities. Suitable efforts with regard to the dissemination of technological and organizational innovations continue to hinge on appropriate education and training, making it possible to limit inequalities in the face of change. These policies can increase the professional mobility of the low-skilled, enabling them to participate fully in the structural changes in the advanced economies. Thus, rather than abandoning the social policies and protection of workers that themselves supported the dynamic process of opening up economies after the Second World War, the aim is to adapt protection mechanisms to fit changes in the determinants of economic security. Consequently, the path of change and sustainable innovation conflicts with the Malthusian solution of protectionism, where inequalities in the North hinder the development of the South.

Appendix 1.

Country Groups

Table 1 groups

Decreasing order of per capita GDP (PPP 1990) :

- in 2001, the 15 richest countries are Luxembourg, United States, Singapore, Norway, Switzerland, Canada, Ireland, Island, Denmark, Netherlands, Australia, Japan, Sweden, France and Belgian ;
- in 1960, the 15 poorest countries were Yemen, Botswana, Tanzania, Malawi, Guinea-Bissau, Ethiopia, Mali, Gambia, Sudan, Burundi, Burkina Faso, Maldives, Bhutan, Lesotho and Mozambique ;
- in 2001, the 15 poorest countries are Haiti, Center Africa Republic, Togo, Burkina Faso, Ethiopia, Mali, Liberia, Niger, Tanzania, Chad, Sudan, Democratic Republic of Congo, Burundi, Sierra Leone and Mozambique.

Appendix 3.

Seminar

Dynamics of World Inequalities

Ifri 5 March 2002, 2:00pm-6 :45pm

2:00-2:20 Introduction

Globalization and the perception of inequalities, *Frédérique Sachwald (IFRI)*

2:20-4:20 Evolution of inequalities in the world

Chair, *Pierre-Noël Giraud (CERNA, Ecole des Mines)*

- World Inequalities : an historical perspective
  François Bourguignon (DELTA and World Bank)
- International income inequality: Trends and significance,
  Arne Melchior (Norwegian Institute of International Affairs)
- Opennes and International Inequalities
  Isabelle Bensidoun (CEPII)

Discussant, *Jean-Pierre Cling (DIAL)*

4:20-4:45 Pause

4:45-6:45 Evolution of Domestic Inequalities

Chair, *François Benaroya (DREE)*

- Will European Countries Follow the American Evolution?,
  Thomas Piketty (CNRS, EHESS)
- Diverse Evolutions of Inequalities in OECD Countries
  Michael Förster (OECD)
- The French Labor Market, Mobility and Inequalities,
  Eric Maurin (INSEE)
- Discussant, *François Bourguignon*

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