

BERTHAUD Pierre

Université de Grenoble, Faculté d'économie et CREG (EA 4625)

pierre.berthaud@upmf-grenoble.fr

VOITURIEZ Tancrède

CIRAD UMR MOISA et IDDRI

tancrede.voiturez@iddri.org

**The BASIC effect on global climate governance.
Power changes and regime shifts**

Résumé

La question traitée dans cet article est celle du rôle joué par les pays du groupe BASIC (Brésil, Afrique du Sud, Inde, Chine) dans l'indétermination des négociations sur le changement climatique. Nous adoptons la ligne d'analyse de l'économie politique internationale (EPI) et mobilisons deux catégories de facteurs explicatifs: l'hétérogénéité des préférences politiques et les variations dans la distribution de la puissance. Notre analyse indique que l'indétermination tient aux variations de la puissance bien davantage qu'au jeu des préférences, relativement constantes.

Abstract

In this paper we address the issue of the indeterminacy of climate change negotiations and examine the role played by the BASIC countries (Brazil, South Africa, India and China) in this indeterminacy. Mobilising the analytical tools of international political economy (IPE), we show that changes in the distribution of power over the last 20 years explain the indeterminacy of negotiation outcomes far more than changes in political preferences, which have remained fairly stable.

The BASIC effect on global climate governance: power changes and regime shifts

This article focuses on the global governance of climate change, in other words the institutional arrangements (formal agreements and associated negotiations) that organise collective State action at the multilateral level in the field of climate change. International public policies to tackle climate change are mainly aimed at limiting anthropogenic emissions of greenhouse gases, emissions that the Intergovernmental Panel on Climate Change¹ (IPCC) presents through its different reports as an increasingly credible and serious threat to the environment and to development. Action on climate change is, in this respect, one of the fundamental pillars of the Rio 1992 compromise on sustainable development². It is certainly not the only one, and in places we will refer to the other aspects of this compromise on sustainable development. But our paper will concentrate on the climate component. Consequently, it will also deal extensively with the Kyoto international regime³, which has guided collective international action to combat greenhouse gas (GHG) emissions since 1997, and whose first commitment period ended on 31 December 2012.

The starting point for this article is the fundamental indeterminacy marking the “post-Kyoto” negotiations. The 17th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) held in Durban in late 2011 led to a compromise providing for the adoption in 2015 of a future agreement (which will enter into force in 2020), whose legal nature remains uncertain. The Durban text mentions several options: a “protocol”, “another legal instrument”, or even an “agreed outcome with legal force”. These different terms suggest rather than assert the idea of a legally binding global agreement⁴. An instrument may be legal but non-binding; and Canada’s non-compliance with its commitments under the Kyoto Protocol, then its complete withdrawal, show that an agreement may be legally binding even though the constraint is never truly applied or may be reversible. Climate governance thus appears to have stopped in midstream, leaving behind it the Kyoto architecture, which looks set to disappear, and ahead of it experimental negotiations focusing as much on the legal architecture as on the nature of commitments.

The indeterminacy surrounding the post-Kyoto regime coincides with the assertion of the BASIC countries (Brazil, South Africa, India and China) in the climate change negotiations. Individually, and even more so collectively, these countries have strongly influenced the process since the Bali Conference in 2007⁵, alternating between defensive and offensive or

¹ The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 at the request of the G7 by the World Meteorological Organization and the United Nations Environment Programme. Its First Assessment Report (FAR) was published in 1990. Four have so far been released and the fifth is expected to be finalised in 2014.

² For a recent presentation of the four documents resulting from the Rio Earth Summit in 1992 (the Declaration on Environment and Development, the Framework Convention on Climate Change – UNFCCC–, the Convention on Biological Diversity, and Agenda 21), see CAS 2012.

³ The Kyoto Protocol concluded negotiations launched five years earlier by the signature of the UNFCCC. It set the target of reducing emissions of six greenhouse gases by at least 5.2% by 2012 relative to the base year 1990.

⁴ One question summarises the indeterminacy and doubt surrounding the outcome of the negotiations still underway: “will we ever have a global climate agreement?”, Tubiana 2012.

⁵ The BASIC group was officially established by the agreement of 28 November 2009. The four countries committed to act jointly at the Copenhagen climate conference. BASIC should not be confused with the BRICS group (the same plus Russia).

“proactive” positions, in the jargon of negotiations. The Bali process should have concluded in Copenhagen in December 2009 with a global agreement. Copenhagen, on the initiative of the BASIC countries, reshuffled the cards of climate diplomacy, invented a new kind of agreement (the “Copenhagen agreement”) with no legal status (the UNFCCC secretariat simply “noting” the agreement), and opened the door to experimentation. The climate governance being invented and developed today is concomitant with the increasing role of the emerging countries in the negotiations.

Against this background, the aim of this article is to further explore this coincidence between the indeterminacy surrounding the post-Kyoto period and the emergence of the BASIC group. How are this indeterminacy and the conflicts it conceals linked to the emergence? This is the questions we will attempt to answer here. First, it should be noted that the goal is by no means to determine who is to blame or, alternatively, to relieve the BASIC countries of their potential responsibilities in what may also be seen as a fundamental questioning of the achievements of Rio (1992) and Kyoto (1997). Our approach to the question is systemic and consists in examining how the emergence of new powers “objectively” affects the system beyond and even independently of calculations and strategies. It also consists in establishing how a systemic change results in the indeterminacy of the outcome, in this case in the impossibility of defining an extension or a stable substitute for the Kyoto international regime. By placing the emphasis on power, we mobilise an inherently relative concept [Krasner S. D. (1991)] that makes changes in the distribution of power, rather than in the evolution of one country or another, the potential determinant of the institutional changes observed.

Economic analysis is accustomed to these situations of indeterminacy concerning the outcome or the “solution”. It generally links them to multiple equilibria configurations where the Pareto criteria are not enough to eliminate the indeterminacy: indeed, on the basis of these criteria alone, the equilibria may be equivalent for the system, but not for the actors involved. The current problem of global climate governance is of this nature: the fundamental indeterminacy of a choice between multiple equilibria. Analysis of the factors that led to this indeterminacy and of those likely to eliminate it will be conducted in the field of international political economy (IPE), which is particularly recommended for describing and explaining the political factors “that will play a decisive role in the selection of a specific solution”⁶.

The article is divided into three parts. The first lays the foundations for the analysis, with on the one hand the use of the concept of an international regime as forged by international political economy, and, on the other, the interactions between two political variables (actor preferences and the distribution of power). The following sections describe the “BASIC effect”, providing insights that converge towards the same indeterminacy in the course of global climate governance. Thus, the second part links the emergence to the breakdown of the “Rio compromise”, adopting a constructivist approach in reference to the IPE movement, which makes the compromise a necessary condition for the creation and stability of an international regime. The third part envisages the BASIC effect from the perspective of “changing the game”, this time in reference to a rationalist conception of international

⁶ Berthaud and Kébabdjian 2006, p. 12

regimes⁷. We will make the distinction⁸ between problems of collaboration⁹ and problems of coordination as a guide to enable us to verify whether the emergence of the BASIC group places the game in a “battle of the sexes”¹⁰ type configuration in which State cooperation is not the solution, but the problem. Using climate change as a consubstantial component of what we define as the Rio (1992) sustainable development regime, we summarise our findings with the analytical description of its rise and fall, before concluding on what would make it shift to a stable post-2015 sustainable development international regime.

1. The analytical basis

With the concept of the international regime, international political economy (IPE) provides a useful tool for establishing – or refuting – the indeterminacy of global climate governance; we begin by presenting it. Indeed, IPE can be used to isolate the political factors likely to explain the position of BASIC in the current indeterminacy of global climate governance, once this indeterminacy has been established. We go on to present these factors.

The concept of the international regime

The concept of the international regime developed by IPE provides an analytical framework to distinguish situations of indeterminacy (a lack of regime) from those in which this indeterminacy is removed (existence of a regime). It also makes it possible to compare different types of international regimes according to the problems they address and the rules they produce – which tells us about the properties of the game and the dynamics of the forces. An international regime is thus seen as a particular type of institutional arrangement produced by the balance of powers and preferences for a given problem of international economic relations. The general principles that the Rio Earth Summit (1992) gave to collective international action, combined with the rules and procedures decided on in Kyoto (1997), form an international regime that for convenience we will call the “Kyoto regime”. The Kyoto regime responds where climate issues are concerned to the “common bad” created by the accumulation of GHGs in the atmosphere. The outcome adopted for Kyoto refers to principles (legally binding commitments on quantified reduction targets and common but differentiated responsibilities) that express a specific configuration of preferences and of the distribution of power.

Finally, positioning ourselves in the field of IPE leads us to address the current indeterminacy of global climate governance not from the viewpoint of the “intrinsic” flaws of the previous solution (assumption that the “Kyoto regime”¹¹ failed), but rather from the perspective of the changes produced in the game of preferences by the variations in power associated with the

⁷ Krasner 1983, Hasenclever, Mayer and Rittberger 1997.

⁸ Following Stein 1983.

⁹ Problems of assurance according to Snidal 1985a.

¹⁰ The name given in game theory to this type of configuration by Luce and Raiffa 1957. Krasner 1991 prefers to call it the “ocean mountain dilemma”.

¹¹ The literature on the assessment of Kyoto is abundant, such as the CAE 2009 report, in which Tirole “establishes the framework for what would be, *from an economist’s viewpoint*, a good agreement at Copenhagen” (presentation of the report, emphasis added). See also Barrett 2008 for an equally normative analysis that is extended to political economy (governance issues).

UNCTAD Virtual Institute Research Seminar 9-11 october 2013

emergence of the BASIC group¹². This BASIC effect takes two different forms, which will be examined successively in the text by combining the different IPE styles of analysis.

Two political factors

The first explanatory factor is the strength of actors, in other words their power in international relations. Variations in power automatically affect the degree of asymmetry of the international system. The BASIC countries have more than doubled their economic weight in the international system (table 1); we infer from this that they have also increased their political power over the last 20 years. Their emergence has affected the equilibrium of the system and the capacity of the different actors to influence the choice of solution to the problem of collective action in the climate negotiations.

Table 1. The weight of BASIC in 1990 and 2012. Share of global GDP (in PPP: 2005) as % of global total

	1990	2012*
Brazil	3	2.9
China	3.5	14.8
India	3	6
South Africa	0.8	0.8
BASIC	10.3	24.5
<i>USA</i>	<i>21.4</i>	<i>19.0</i>
<i>European Union (27)</i>	<i>18.4</i>	<i>19.4</i>
<i>Japan</i>	8.9	5.5

* CHELEM-CEPII estimations

Data Source: CEPII 2011

Actor preferences constitute the second factor capable of explaining the contribution of a country or group of countries to a potential state of indeterminacy. The configuration of preferences at a given point, their heterogeneity and their variations over time play a key role in explaining institutional arrangements and their changes¹³. BASIC remains to date a group of developing countries¹⁴ that has kept in climate negotiations to the position of the G77, or close to it¹⁵, thereby fostering a rather conservative diplomatic position within the UN forums,

¹² A comprehensive study should not be limited to the BASIC group. Mexico and Russia are also major actors in climate negotiations.

¹³ It could be said that if and when preferences are homogeneous, the political aspect of the problem disappears, leaving only its economic aspect.

¹⁴ A category that, if we recall, was introduced into the international system at the end of the 1960s and which gives countries that choose to be included the right to benefit from exceptions from general treatment (SDT and others). Thus, in the context of China's accession to the WTO, Chinese diplomacy forged a doctrine; that of a "developing country that intends to remain that way". It has kept to this since then, including in the climate negotiations, for example when it decided to ratify the Kyoto Protocol in 2002 by asserting its right to development in order to avoid Annex I (the countries subject to legally binding GHG emissions reduction targets) even though at the time it was already one of the world's top GHG emitters.

¹⁵ However, the development gap between China and the rest of the G77 has not failed to create divisions, as

without however giving up initiatives (especially the Copenhagen agreement) that are the prerogative of the “powerful”.

The quantification of these two variables comes up against problems such that we must here dismiss any notion of producing an empirical analysis of them, however approximate. We know that the measurement of power is a research subject in its own right in social science, for which conclusions to date are disappointing¹⁶. The measurement of State preferences, on the other hand, comes up against the same difficulties as those of the preferences of agents in market analysis – except that the complexity of the actor considerably accentuates this difficulty. We will therefore limit ourselves to an analytical treatment of these two variables – not without highlighting in conclusion the need for an original research strategy to measure power.

Another aspect concerns the link between these two forces. Is the degree of heterogeneity of preferences sensitive to variations in power? Does the asymmetry of the system affect the structure of preferences? The constant solidarity thus far of China and the BASIC group with the G77 in the climate negotiations is an indication of at least a relative independence of the two forces – taking into account the clear increase in power of these countries over the last 20 years. However, it is clearly not enough to serve as evidence, and the possibility of a change of doctrine for China or BASIC in the months or years to come cannot be ruled out, especially with the prospect of a growing gap between the average income of the BASIC group and the rest of the G77. Our analysis will therefore be based on the assumption of independence of these two factors. But it will take into account its fragility when drawing conclusions.

2. The breakdown of the Rio compromise on sustainable development

Let us now examine how the emergence of the BASIC group and the resulting changes in the balance of power destabilised the Rio compromise (1992) on sustainable development. We show in particular that variations in power had this effect because they were not accompanied by a comparable variation in the other determinant of global climate governance: actor preferences. Thus, the Rio compromise was destabilised not because preferences had fundamentally changed¹⁷, but because the emergence of the BASIC group considerably increased the weight of the developing countries’ “preference for development” relative to the developed countries’ “preference for the environment”. Here, the demonstration situates us within the constructivist branch of IPE, which insists on the role of compromises in the creation and stability of international regimes.

revealed by the acronym of the group “G77+China” that has appeared over the course of negotiations. See Kasa, Gullberg and Heggelund 2008 for an examination of the emergence of Brazil, China, India and South Africa as a factor in the heterogeneity of preferences within the G77. The authors conclude, however, that this heterogeneity is not so great as to threaten the cohesion of the G77 on climate policies.

¹⁶ See, for example, the Correlates of War (COW 2010) project on “National Material Capabilities”, which uses six categories of criteria to estimate the national material capabilities of countries since 1816. The programme recognises that power should not be confused with material capabilities, but it considers that the former cannot be understood without taking into account the latter.

¹⁷ Or because the underlying scientific consensus had been weakened. In fact, the opposite is true here.

UNCTAD Virtual Institute Research Seminar 9-11 october 2013

The (international) compromise on sustainable development was gradually built in the context of the 1970s¹⁸ and in that of the 1980s, resulting in its explicit formulation in the Brundtland Report and in its institutionalisation by the Rio Earth Summit in 1992¹⁹. The “Rio compromise” became the cornerstone of collective international action in the field of climate change, legitimising and guiding in particular the implementation of the Kyoto international regime. Its destabilisation since the 2000s is linked, by a large portion of the literature on the subject, to design flaws. Following the extensive definition of international regimes²⁰, we highlight a different explanation. To the question “why has the Rio meta-regime broken down?”, the answer we sketch out in line with constructivism is the following: the balance of power has shifted in favour of the preference for development.

The asymmetrical Rio compromise

The Rio Earth Summit established the concept of “sustainable development”²¹. It made it the criterion for guiding and assessing collective international action by deciding to include it in the preambles or articles of international treaties and organisations. According to Barbier 1987, sustainable development assumes trade-offs between various goals: economic (growth), biological (environment) and social (justice, equity). In this sense, Rio is a compromise between heterogeneous preferences. Moreover, for the analyst it is a marker of these preferences and the means of understanding how their initial heterogeneity was overcome, without being an insurmountable obstacle to collective international action.

Any compromise is associated with a problem of diverging preferences: preferences that are sufficiently conflicting to prevent the formation of a consensus, but also sufficiently reconcilable to avoid an outright conflict between actors. A compromise of any kind is thus defined as “an agreement/arrangement implying mutual concessions” with a view to reaching a common solution that the Parties must jointly implement²². Rio corresponds perfectly to this definition²³. Stripped back to its basics, it establishes or sets down a hierarchy of priorities and thereby solves through political choices a scientifically “undecidable” problem²⁴: that of the objective hierarchy between the development outcomes and environment outcomes for our area of interest here – the “climate” component of the Rio legacy²⁵.

The hierarchy established in this respect at Rio can be summarised by the formula “environment before development” in the sense that collective international action was

¹⁸ Meadows, Meadows, Randers and Behrens 1972.

¹⁹ UN-WCED 1987.

²⁰ Haas 1980, 1982, 1990, Ruggie 1975, 1982, 1998.

²¹ CAS 2012.

²² van Parijs 2010.

²³ Except in terms of enforceability. The Rio Declaration includes 27 founding principles of global cooperation for sustainable development, but it is non-binding (CAS 2012, p. 2-3).

²⁴ Indeed, the IPCC consensus does not deal with the hierarchy of problems. It is limited to identifying the existence of a climate problem, its causes, its magnitude and, more partially, ways of addressing it. But it can by no means serve as proof that the environment should take precedence over development (or vice versa) in the hierarchy of priorities.

²⁵ What makes Rio a compromise is not that it asserts for the first time in the field of international commitments the linkage between different targets, whether economic (growth), environmental (conservation) or social (equity), but that it operates a hierarchy between these targets. The linkage between development (which may judiciously include the economic and social targets) and environment is in this respect the clear basis of the Rio compromise.

required for the first time to include environmental targets in its development goals – and not the other way round. Nor is it difficult to outline the interplay of preferences that resulted in this fundamental compromise. It revolves around the conflict (of preferences) between the developed countries and the developing countries – the G77 and China in the negotiations. Rio marks a major watershed after which the preference for the environment that had gradually emerged in developed countries was placed hierarchically above (and not simply at the same level as) the international cooperation priorities of the developing countries’ “historical” preference for development. Rio thus decided in favour of the developed countries’ preference – which is enough to clearly differentiate it from a consensus²⁶. It is therefore asymmetrical, which by no means prevents it from being a “real” compromise (and not a “capitulation” in the words of van Parijs) since the choice in favour of the environment is ipso facto offset by a principle concerning the “right to development” (Principle 3 of the Declaration) and by the principle of “common but differentiated responsibilities (Principle 7), which form the legal basis of the exception granted to any country declaring itself to be developing²⁷. The developing countries give the developed countries the right to place the environment at the top of the hierarchy of their collective action. The developed countries give the developing countries the right to not do so. The result is not null (status quo ante) in that (i) it authorises some countries to devote resources and to conclude agreements that explicitly make the environment (climate) their priority, and (ii) it gives others the right to not do so. Rio thus creates the essential political condition needed for a legally binding and differentiated commitment to tackling global warming – the Kyoto regime.

The destabilisation of the Rio compromise

The Rio compromise (1992) between environment and development, embodied in Kyoto some five years later, transposes the asymmetry between environment and development to an asymmetry of rights and obligations. We often forget that all of the UNFCCC member countries have signed the Kyoto Protocol (but not all have ratified it), including the BASIC group and the developing countries. The priority to the environment, granted in return for the right to development, may be interpreted when reading the Kyoto Protocol as an obligation accepted by all for some countries (Annex I) to protect the (climate) environment, in return for the right accepted by all and granted to many countries (non-Annex I) to development. Kyoto was the first destabilising factor of the Rio compromise. The US refusal to ratify Kyoto

²⁶ Van Parijs 2010 provides a highly enlightening discussion of what distinguishes a compromise from a consensus: a consensus relates to a configuration in which the underlying preferences are harmonious. A compromise may evolve into a consensus (this is one of the meanings he gives to the concept of a “good compromise”). It is also in the light of this analysis that we can understand the “scientific consensus” on the environment produced by the IPCC: a consensus that plays a key role in the hierarchy of priorities since it has no equivalent for the two other development pillars. The IPCC diagnosis that has been continuously refined and corroborated over the course of the successive reports has clearly played a decisive role in the conversion of the developed countries’ preference (conversion of the hierarchy between priority to development and priority to the environment). It also played a crucial role in the conclusion of the Rio compromise by giving developed countries an argument of “truth” that no other point of the negotiations or other category of actors can mobilise. It is even more interesting to observe in these conditions that once the Rio compromise was acquired, the United States continually attempted to weaken the scientific consensus in negotiations with its developed country partners on the design of collective action leading to the Kyoto international regime.

²⁷ As already mentioned, the United Nations system has recognised this status of developing countries since the 1970s and it is declaratory.

and Canada's withdrawal demonstrate a similar refusal to translate an asymmetric system of preferences into an asymmetric system of rights and obligations.

Crystallised by the legal form of Kyoto, the destabilisation of Rio is not, however, linked to a single, sudden event. It continued throughout the 2000s. The United Nations programme on the Millennium Development Goals (MDGs) is another step in this destabilisation. The compromise on the MDGs revived the conflict of objectives that Rio had settled, shifting the priority for collective international action to poverty reduction, in other words to the segment linking the "economic" pillar to the "social" pillar of sustainable development. Action in favour of the environment (climate and other aspects) was not removed from the Millennium programme goals and targets. But contrary to what was achieved at Rio, it slipped down in the hierarchy of norms.

The final milestone in the destabilisation of Rio was provided by the turning point in Bali (2007). The Kyoto international regime that set the rules for collective action for the first commitment period (2007-2012) is based on the principle of legally binding emission allowances (or cap and trade) for the Annex I countries – developed countries and certain transition countries. The negotiations on the post-2012 regime launched at COP13 in Bali saw the emergence of the concept of NAMAs²⁸, which in many ways is analysed as a strategic alternative to emission allowances. Led by India and supported by many other developing countries, NAMAs are one of the strategic tools with which the developing countries went on to oppose the developed country project to extend the system of legally binding allowances to the top emitters among the developing countries from the second commitment period²⁹. Arguing once again the right to development, but this time also claiming the right to sovereignty, the developing countries found in NAMAs support for their demand to initiate national plans, certainly measurable and verifiable³⁰, but decided in a sovereign manner according to the modalities that best suit them, which was approved by the COP in Cancun in 2010³¹.

Of course the "Copenhagen failure" – a procedural failure in that the COP in Copenhagen was supposed to conclude the Bali process – cannot be reduced to the simple impossibility of settling the conflict between the principle of allowances supported by some developed countries and that of NAMAs supported by the developing countries, especially as the position on this subject of the foremost power, the United States, has since remained inconsistent and indecipherable. But this conflict concerning the *modus operandi* of collective action is nevertheless one of the aspects of the "Copenhagen failure" that in procedural terms indicates more specifically the "Bali failure". Not only did the Rio compromise fail to build a

²⁸ Nationally Appropriate Mitigation Actions (NAMAs) are mentioned for the first time in paragraph 1(b)(ii) of the Bali Action Plan. For a detailed examination, see van Asselt et al. 2010, who indicate that the positions of the four BASIC countries on NAMAs are very similar, particularly in that they see them as a mechanism (i) that is distinct from that of binding commitments (in accordance with the principle of common but differentiated responsibilities), and that relate to (ii) "*mitigation measures that should not limit their development*" (p.65, emphasis added).

²⁹ The specialised literature more readily describes this change as a shift from a top-down process (Kyoto) to a bottom-up process that is less centralised and more sensitive to State sovereignty.

³⁰ MRV mechanism (measurement, reporting and verification) endorsed by the CPOP in Cancun (2010) to which is added the possibility for the UNFCCC to conduct "technical inspections of all climate policies in developing countries, whether subsidised or not" (CAS 2011, p. 3).

³¹ CAS 2011.

consensus on environment and development (convergence of initially conflicting preferences), but it has been weakened to the point of now being destabilised by the remarkable consistency of the initially categorical positions of the parties concerned on their hierarchy of objectives. The explanation for its destabilisation is not therefore so much a change of preferences as the underlying variations in the balance of power and the impact of these variations on the capacity of the different actors to influence the outcome.

The redistribution of power in the world between Rio 1992 and Rio 2012 is undoubtedly one of the main facets of the problem. Although it cannot be completely reduced to the stylised facts of the emergence of the BASIC group, there is no doubt that the BASIC countries are the key actors in it³². This is true individually for the three largest among them. Beyond the previous indications, the following figures give an overview of the increase in weight of these countries on different registers of power between 1990 and 2009 (table 2).

Table 2. Weight of BASIC in the distribution of global GDP, trade and GHG emissions 1990-2009 (as %)

	Share of GDP (PPP, 2005 dollars)		Share of world trade in goods		Share of global GHG emissions	
	1990	2009	1990	2009	1990	2009
Developed countries	60.0	56.0	79.0	64.0	62.0	48.0
USA	21.4	19.9	16.5	13.90	19.92	18.33
European Union	18.4	15.1	18.8	16.8	17.88	13.35
Developing countries	40.0	44.0	21.0	36.0	38.0	52.0
BASIC	10.3	21.6	4.9	15.3	19.5	28.2
China	3.5	12.8	2.6	11.6	12	19.1
Brazil	3	2.8	1.3	1.5	2.3	2.7
South Africa	0.8	0.7	0.3	0.8	1.5	1.4
India	3	5.3	0.7	2.2	3.7	5

Data: IMF, OECD, WTO and UNFCCC – WRI, authors' calculations

The very concept of BASIC did not exist at Rio (1992). The BASIC group is now a formal coalition that provides an opportunity for discussions and periodic summits aimed at forging or consolidating a common position on the main subjects of global governance: trade, finance but also climate negotiations³³. The BASIC countries thus surprised many observers somewhat during the conclusion of COP15 in Copenhagen by getting the United States to

³² Jacquet 2010 attributes a far greater importance to the power factor than in the report on global governance (CAE 2002), of which P. Jacquet is one of the co-authors. Far from indicating a shortcoming of the 2002 report, this appreciation of the power factor, alongside that of the sensitivity to global goods (already central in the 2002 report) is in our view a clear indication of the specific change that took place between these two dates.

³³ As noted by Hallding, Olsson, Atteridge, Vihma, Carson and Roman 2011, p. 13, the high visibility of the BASIC group on climate change should not obscure the fact that its rationale is far broader.

agree to finalise together (and without Europe or other influential actors) the common text to serve as (the basis of the) final declaration.

These elements are clearly not enough to provide proof that variations in power, and in particular those induced by the emergence of the BASIC group, were the key factor in the destabilisation of the Rio compromise. This would require, *inter alia*, eliminating certain conceptual and methodological problems that punctuate the long and gloomy debate on the measurement of power. Our intention here is far less ambitious and on a different level. It consists in attempting to follow to a conclusion the line of analysis based on the heterogeneity of preferences. Finding that the essential dividing line in this field of preferences had not fundamentally varied since Rio 1992, it follows that the explanation of a change in the outcome (the evident weakening of the initial compromise) must at least partly result from the variation of the relative capacity of actors to influence the outcome of the negotiation process. The rise of the BASIC group is thus the strongest contender for explaining the increasing power of the developing countries and, hence, the questioning of the hierarchy of norms³⁴ for which the developed countries succeeded in gaining support 20 years ago in a very different context of the distribution of power³⁵.

3. Changing the game and shifting regime

The constructivist perspective has enabled us to identify a first effect of the emergence of the BASIC powers on the course of global climate governance: the Rio founding compromise has broken down rather than evolving into a consensus, in the words of Van Parijs. The rationalist perspective³⁶ that we adopt in this part enables us to pinpoint a second effect of the emergence of the BASIC countries: the effect of a change of game, which complements the previous one.

Rationalism approaches international institutional arrangements using the tools of game theory and from the viewpoint of the problems of collective action posed by the heterogeneity of actor preferences – and the resulting strategic interactions. These elements constitute the basis of the rationalist theory of international regimes in which the heterogeneity of

³⁴ We know that this notion of the “hierarchy of norms” has been one of the fundamental concepts of the theory of law since Kelsen. We refer to it here with caution and after having focused on the notion of the “hierarchy of priorities”, because it goes without saying that what we are dealing with here is essentially a political process that incorporates aspects of law, but is not confined to these. In our view, the idea of the hierarchy of norms taken from the language of law nevertheless seems to be the best for examining the fundamental problem of global governance if we indeed understand this as the problem of ensuring compatibility between the different sectoral regulations (issue areas).

³⁵ A more comprehensive study on the impact of variations in power on the course of the Rio compromise should assuredly take into account at least two other important aspects: (i) the weight of Russia (Rio took place one year after the formal dissolution of the Soviet Union), and (ii) the heterogeneity of preferences within each of the two generic categories of preferences that we have looked at here: that of the developed countries and that of the developing countries.

³⁶ See the EPI survey by Katzenstein, Keohane and Krasner 1998, p. 646. Rationalism and constructivism are presented in it as the two main *general theoretical orientations*. Rationalism produces a problem solving type heuristic: the identification and resolution of a problem by rational actors whose preferences or interests may be clearly specified. Derived from economics, this general theoretical orientation covers not only liberal arguments that insist on absolute gains and the voluntary nature of agreements, but also realist arguments that insist instead on relative gains and the role of power and coercion. By contrast, the heuristics produced by the constructivist theories draw upon the human sciences and sociology. They insist on the identity of actors (as opposed to their rationality) and focus on the way in which “reality” is socially constructed. See also Hasenclever, Mayer, Rittberger 1997, Snidal, Thompson 2000.

UNCTAD Virtual Institute Research Seminar 9-11 october 2013

preferences creates incentives to establish and maintain international regimes³⁷. The configurations of preferences are divided according to four categories.

The first two (configurations of purely harmonious preferences and purely conflicting preferences) are of little interest in the sense that they create no incentive to cooperate. Cooperation is pointless in a harmonious game, and impossible in a purely conflicting game³⁸.

The other two are situations of mixed configurations of actor preferences (partially harmonious and partially conflicting). Following on from Stein (1983), these intermediate situations are divided into two categories according to the type of dilemma and problem of collective action that they raise: “a dilemma of common interests” giving rise to a problem of collaboration for some; and a dilemma of “common aversion” with a problem of coordination for others³⁹. The problems of collaboration generated by dilemmas of common interests relate to market failures that cooperation helps to correct by means of common disciplines that bring actors closer to the Pareto frontier – as long as free riding⁴⁰ can be effectively avoided. By contrast, the problems of coordination generated by dilemmas of common aversion relate to a conflict of distribution along the Pareto frontier. There are “many points along the Pareto frontier”⁴¹, in other words a situation of multiple equilibria that are collectively indifferent but individually different.

How can this general problem shed light on the climate negotiation game? First, it makes it possible to approach the indeterminacy that has characterised global climate governance since COP13 in Bali as a problem of coordination. Next, it helps to better understand the role that variations in power have played in converting a regime of collaboration established by Kyoto into a battle of the sexes game whose outcome also depends on the factor of power.

A problem of coordination

The climate negotiations are closer today to a dilemma of common aversion than to a dilemma of common interests. The previous section left us with the notion of a conflict of preferences at the most essential level: that of the hierarchy of norms. A conflict that the BASIC group revived by using its increased negotiating power to support the developing countries’ “preference for development”.

This concept of the hierarchy of norms is important as it avoids distorting the debate. Indeed, the preference for development should not be mistaken for indifference (not to say hostility) towards the environment - and vice versa for developed countries. The other major feature of the climate negotiations is precisely that they have succeeded in raising awareness in most, if not all countries⁴² about the need to act, and thus to implement plans and commit resources to reduce GHG emissions. The scientific consensus plays a role in this, as does education and

³⁷ Krasner 1991, p. 338.

³⁸ The “game” of global climate governance is clearly neither harmonious nor purely conflicting.

³⁹ See also Kébabdjian 1999, p. 152 et seq.

⁴⁰ Indeed, free riding is the main obstacle to collaboration – in other words to cooperation aimed at achieving a common “Pareto superior” goal.

⁴¹ Krasner 1991.

⁴² The positions of OPEC in particular and the spectacular attempts by Saudi Arabia to destabilise the Copenhagen Conference in December 2009 indeed give the impression that among the developing countries, one category of countries is an exception.

the information produced by the negotiations. We cannot therefore see the current indeterminacy as evidence of a purely conflicting game pitting advanced countries determined to satisfy a uniform preference for the environment against developing countries firmly committed to pursuing their development strategies with no action undertaken in the field of the environment. The effective commitment of the developing countries through national plans is certainly variable – including within the BASIC group itself, where South Africa is clearly less dedicated than Brazil or China⁴³. But the commitment of the developed countries is no less variable.

Attributing to each category of actors an unambiguous preference would mean assimilating the US refusal to participate in the Kyoto regime with a complete and sudden rejection of any environmental policy. This is evidently not the case. And just as a refusal to cooperate should not be confused with a refusal to act, care must be taken not to assimilate any failure of cooperation with an actor's refusal to cooperate – associated with an incentive to free ride in the prisoner's dilemma.

It is precisely at this point that the problem of coordination emerges, a conjunction of three phenomena: the determination of actors to act is real (it is the “common aversion” that prompts them to act), cooperation is needed for action to be effective, but there is a divergence concerning the purpose of the cooperation. As Kébabdjian put it, “the difficulties arise *due to the will to cooperate*: the choice to be together (cooperation) no longer appears as a means but as an objective, although this does not prevent a conflict”⁴⁴, adding later that, in this type of configuration, “there are several equilibria; consequently the *outcome of the game is uncertain*”⁴⁵.

We can represent this simply in the form of a “battle of the sexes” type matrix (figure 1). Let us assume that the climate negotiation game is reduced to two actors (A and B) in which A represents by convention the position of the developed countries and B that of the developing countries. Let us give each of these two possible options (indexed 1 and 2) and let us call “cooperation” the situations in which both actors abide by the same hierarchy of norms (development first or environment first). Let us also give the actors the capacity to classify the results of the interaction of their choices according to an ordinal scale⁴⁶ of satisfaction: $1 < 2 < 3 < 4$.

This matrix highlights a situation of high interdependence since in the absence of an agreement on the hierarchy of norms, the result is deficient both collectively and individually (boxes II or III). This high interdependence is due to the fact that in the coordination game, the actors have no dominant strategy (one that guarantees the actor a result that is superior to the other, whatever the other actor does).

The matrix also makes it possible to confirm that the hierarchy of norms chosen certainly guarantees a “Pareto superior” solution (boxes I and IV), but that it raises a secondary conflict concerning the distribution of benefits (alternatively of costs) of collective action.

⁴³ Heggelund 2007 and Kasa, Gullberg and Heggelund 2008 describe the position of climate policy in the priorities for foreign and national policy in China.

⁴⁴ Kébabdjian 1999, p. 166, emphasis added.

⁴⁵ Idem p. 166, emphasis added.

⁴⁶ Snidal 1985a, p. 92, for the advantages and limitations of ordinal 2 x 2 games.

Figure 1. The battle of the sexes game

		B (developing countries)	
		B₁	B₂
A (developed countries)	A₁	I <div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; margin: 10px auto;">(4, 3)</div>	II (1, 1)
	A₂	III (2, 2)	IV (3, 4)

This specification distinguishes between pure coordination games (such as the chicken game) and games that, like that of the battle of the sexes represented here, associate a problem of distribution with the problem of coordination. This is the case when the two actors do not obtain (or do not expect) the same “benefit” from their cooperation.

This figure clearly schematises the problem of climate negotiations. It presents the Rio compromise (circled in figure 1) as the commitment of all countries to cooperation – even when they are, like the developing countries in Kyoto, exempted from any commitment other than reporting. A biased commitment (we said asymmetric) in favour of the advanced countries (box I) makes the solidity of the initial compromise (and therefore that of the associated institutional arrangements) dependent on the stability of the balance of power from which it emerged. The developing countries might indeed have expected more. They could also be satisfied with the concessions the developed countries grant them by considering that the failure of Rio – Kyoto would be detrimental to all of them.

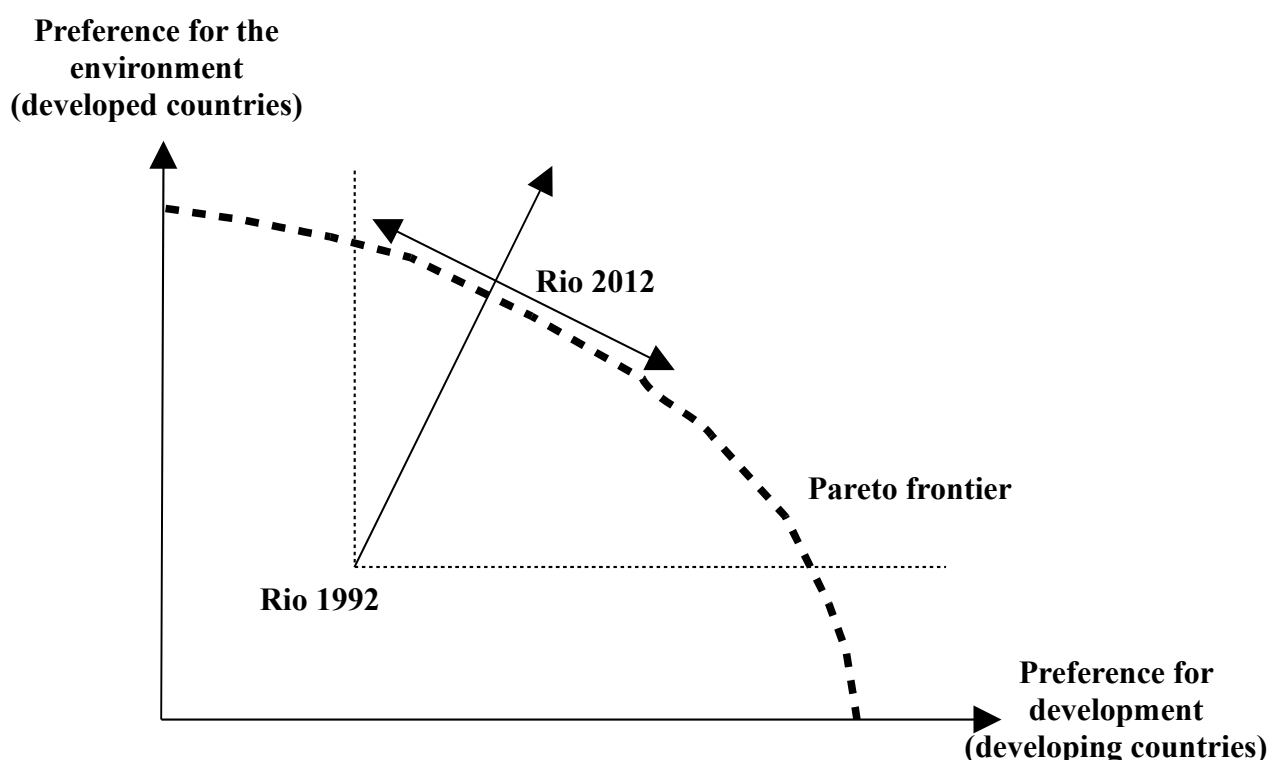
By launching negotiations on the second commitment period, Bali and the conferences that have followed have reopened the game. Not because the developing countries were waiting for a window of opportunity to open in the negotiation agenda, but because the distribution of power had considerably changed at Bali. The allowances versus NAMAs conflict is one of the clearest expressions of this. The conflict concerning the conditionality of funding (conditionality of commitment) is another.

The characteristic of the climate negotiations is not free riding. It is not that the developing (or developed) countries would be tempted to defect – the temptation to free ride is in fact nil in this kind of game. And we are in turn tempted to think that, in view of the 20 years of climate negotiations, this is more or less so in reality. The main defection in this game will have been that of the foremost power, which can by no means be analysed as an example of free riding. The aim of the United States does not seem to be to slyly defect, but rather to move the negotiations into the sphere of a different hierarchy of norms – one that is more

consistent with its initial preference⁴⁷ (box IV). The outcome is again uncertain and this indeterminacy makes it impossible to rule out the risk of a cooperation failure (boxes II and III). What threatens the process underway is not defection/cheating, but the failure of all cooperation even though i) the problem is getting worse (the need to act is increasing) and ii) the countries are expressing growing demands for cooperation.

Finally, the matrix helps to fully understand that the “power of knowledge” (scientific consensus) is of little help in settling this secondary conflict (the conflict that cooperation triggers by settling another). This is not a problem of information or of trust. That would be the case if the problem was limited to one of coordination (such as the chicken game). But the problem of coordination is coupled with a problem of distribution on which the information produced by institutions is likely to be ineffective – except that it may reveal even more crudely who gains most –, information that is crippling when the actors are more sensitive to relative gains than to absolute gains. The problem boils down to one of the distribution of gains and charges that only the balance of power can settle – in the absence of a higher authority (see figure 2 for a representation).

Figure 2. Illustration



Sources: authors based on Stein 1990 and Kébabdjian 1999, p. 163.

There are two ways of eliminating this indeterminacy. The first consists in building tactical linkages between subjects in order to offset in one field what is lost in another. The

⁴⁷ It should be noted that the Bali Conference in 2007 marked the renewed commitment of the US diplomacy to the multilateral climate negotiations after a withdrawal, then plurilateral attempts within the Major Economies meetings.

UNCTAD Virtual Institute Research Seminar 9-11 october 2013

Millennium Development Goals (2000) can be considered from this perspective: an agreement based on a hierarchy of norms that is partly the opposite of the Rio – Kyoto hierarchy, or even the emergence following the COP in Poznan (2008) of issues of adaptation and its funding. The other derives from the balance of power, and therefore from the mobilisation of capacities of power. As long as preferences are polarised and invariable, power will be the deciding factor. And if, like Krasner, we take into account the fact that the linkages are far from being indifferent to power, we will conclude with him that the distribution of power better explains the institutional arrangements between States than their joint efforts to find a solution to market failures⁴⁸.

The global effect of BASIC on the distribution of power

At this stage, we have established that variations in the distribution of power affect the structure of the game. We now have to explain why the new balance of power created by the emergence of the BASIC group results in an indeterminate outcome. It is one thing to observe that the factor of power plunges actors into a world of multiple equilibria; but it is quite another to explain why this factor of power does not make it possible to select a specific point on the Pareto frontier. Indeed, why does the emergence of the BASIC group translate, at least up until now, not into a change of international regime, but into the absence of any regime in this field until 2020 at the earliest?

This question deals less with the “dynamics of power” (its variations over time) than with what we will call the “statics of power”: its distribution at a given moment and, by extension, the degree of asymmetry of the international system. IPE discussed this at length in the 1970s and 1980s, during the development phases of hegemonic stability theory (HST). Its relevance to our purposes is clear. Since power is relative, the emergence of the BASIC group implies, all other things being equal, a certain dilution/deconcentration of power at the global level. We could also say that the emergence of the BASIC group has been a factor in the reduction of asymmetry in international relations. This leads us to a conjecture about the effect of asymmetry on the outcome of the game rather than on its form.

In reality, HST proposes two contrasting answers to this question. This is due to the fact that HST (following the designation by Keohane that has become commonplace) is not a unified theory, but a research programme informed by the controversy between the two main streams of rationalism (the liberal branch and the realist branch) based on common foundations formulated by Kindleberger. According to Kindleberger, “for the world economy to be stabilized, there has to be a stabilizer – one stabilizer”⁴⁹.

For the realist stream, the solution to problems of collective action depends on the existence of a hegemonic power – and thus on a high level of asymmetry in the system. Realism therefore agrees with Kindleberger’s conclusion on the single leader/hegemon, but it explains it differently using the argument of relative gains. The liberals consider, on the other hand, that the solution to problems of collective action may emerge in a perfectly symmetrical world – in other words with no power differential between countries. This is the “tit for tat”

⁴⁸ Krasner 1991, p. 337.

⁴⁹ Kindleberger 1973, p. 312.

solution based on the iterated prisoner's dilemma⁵⁰. However, the "cooperative"⁵¹ solution is too fragile and conditional to have any explanatory power in the field of international relations. The liberal branch shows that a solution may also emerge from cooperation between powers. The "K-group" theory⁵² thus establishes that having just one leader is not a necessary condition for the stability of the system. It is true that this result depends on the behaviour of actors motivated by absolute gains and that the outcome in question is consequently more a matter of "moving closer to the Pareto frontier" than "eliminating indeterminacy along this Pareto frontier".

Despite their differences, these two branches of HST validate the same general outcome. Asymmetry is "recommended" to find a solution to problems of international collective action. The monopoly of power advocated by Kindleberger and by the realist authors is a borderline case of this asymmetry. All in all, it is of little interest for global climate governance, where the most fundamental dividing line is situated between countries that are differentiated by their development gaps and consequently their preferences, rather than by their differences in terms of power.

This debate is of interest to us because it makes the asymmetry of power a key factor in the creation and maintenance of international regimes (table 3, Annex). But its conclusions must be projected into the context of the heterogeneity of preferences on the hierarchy of norms. Power is then the only operator that can solve the problem and produce the hierarchy of norms necessary for the creation and maintenance of an international regime. There is no solution to a dilemma of common aversion like the one currently facing global climate governance without the intervention of power – and therefore without asymmetry. The Rio-Kyoto process proves that global climate regulation is not doomed to remain locked in this dilemma. And it is in fact the shift in the balance of power caused by the emergence of the BASIC group that has led to the current indeterminacy, by giving the BASIC countries the opportunity to support the preference for development of the G77+China. But it does not yet seem sufficient to lead it to impose on the developed countries a compromise built on the opposite grounds.

This point is illustrated by table 3 which summarises the main characteristics of the Rio (1992) regime and encapsulates the contributing factors to its rise and fall, taking climate change negotiations as a storyline. We define the collective situation framing the regime (distribution of power, social objectives, consensual knowledge) and its descriptive variables (institutions, principles and rules)⁵³. The Rio "meta" regime is described in the second line, emerging as a compromise between a powerful "North" with preferences for the environment (as the subsequent Rio Conventions testify) and a less powerful "South" (the Basic did not exist at this time) with preferences for development. The compromise is reached through the Common but differentiated responsibility principle granting more favourable treatment to developing countries (last column) and a tactical issue-linkage between poverty and environment⁵⁴. Strikingly enough, this principle remains stable over time (top to bottom)

⁵⁰ Axelrod 1984.

⁵¹ Cooperative in the sense that all actors are led rationally to relinquish their initial preference for free riding.

⁵² Snidal 1985b.

⁵³ Drawing on Krasner 1983, Haas 1980, and Ruggie 1975, 1982.

⁵⁴ "Poverty is a major cause and effect of global environmental problems" (*Our Common Future*, Brundtland report, I.1.8).

UNCTAD Virtual Institute Research Seminar 9-11 october 2013

while the distribution of power is reshuffled (second column), social objectives erode and their scope widens (third column) and initial consensual knowledge tumbles (fourth column) in spite of attempts to sustain the momentum with consensus building tentative reports – eg. the Stern Review on the economics of climate change, the Sukhdev Report on the cost of biodiversity losses⁵⁵. The current situation (last line) shows a large spectrum of active players with more symmetry in power distribution than ever since 1992, a large spectrum of unsolved problems or issue areas without clear tactical, substantive or fragmented linkages – except through countries' commitment in *The Future We Want*, the Rio+20 Conference final document (UN, 2012) to define sustainable development goals (SDGs) by 2015⁵⁶.

In the current indeterminacy we have described, SDGs appear as a transparent and conservative attempt to re-link issues which have been progressively de-linked and de-institutionalized since the Rio Earth Summit in 1992, as Rio+20 Conference final document testifies:

“We recognize that the development of goals could also be useful for pursuing focused and coherent action on sustainable development. We further recognize the importance and utility of a set of sustainable development goals, based on Agenda 21 and the Johannesburg Plan of Implementation, which fully respect all the Rio Principles, taking into account different national circumstances, capacities and priorities, are consistent with international law, build upon commitments already made, and contribute to the full implementation of the outcomes of all major summits in the economic, social and environmental fields, including the present outcome document. The goals should address and incorporate in a balanced way all three dimensions of sustainable development and their interlinkages. They should be coherent with and integrated into the United Nations development agenda beyond 2015, thus contributing to the achievement of sustainable development and serving as a driver for implementation and mainstreaming of sustainable development in the United Nations system as a whole.”⁵⁷

This sounds, in a way, to something like “from Rio (1992) to Rio (2012) and back again”. Is the conservative shift toward a “post-2015 sustainable development regime” suggested by *The Future We Want* plausible on the basis of the current indeterminacy and change in the game we have described? Conservative and radical changes to an international regime roughly parallel Stephen Krasner's distinction between changes within regimes and changes to a regime itself⁵⁸. Modification of rules and decision-making procedures, Krasner argues, are changes within regimes. These occur in response to new external conditions, but they do not reflect fundamental shifts in values. By contrast, changes in principles and norms are changes to a regime itself. They indicate that basic regime tenets are under challenge, often because one group of states is seeking to replace them with competing tenets⁵⁹. The precedent of the Copenhagen climate change agreement, which does not content any reference to the principle of common but differentiated responsibility, tend to suggest that a radically new regime can emerge at the initiative of a few leading countries creating de facto a power asymmetry, when these additionally break up the overarching principle of the previous order.

⁵⁵ Stern 2006, Sukhdev et al. 2010.

⁵⁶ *The Future We Want*, Rio+20 Final Outcome Document, 19 June 2012, <http://rio20.net/wp-content/uploads/2012/06/N1238164.pdf>

⁵⁷ UN 2012, p. 46, §236;

⁵⁸ Krasner 1983.

⁵⁹ Helfer 2003, p. 15.

Conversely, sticking to such a principle in a symmetric game is much more unlikely to generate any regime at all. The conditions for a climate regime to be stable are the very conditions which makes its emergence a seemingly impossible task.

Conclusion

This article began by establishing the idea of a radical indeterminacy surrounding the future of global climate regulation. This indeterminacy takes the form of a questioning of the compromise on sustainable development negotiated in Rio in 1992 and of the resulting Kyoto international regime.

The article has attempted to explain the role of the “BASIC effect” in this indeterminacy by following the line of analysis of international political economy (IPE) and by mobilising two categories of political factors: the heterogeneity of preferences and variations in the distribution of power. There was no question of inferring from this still rudimentary base any predictions concerning solutions to this current indeterminacy. The distribution of power in 1992 enabled the developed countries to exercise leadership. The distribution resulting from the emergence of the BASIC group now prevents the leadership function from playing its role in the production of a stable hierarchy of norms.

Our work also highlights two types of conclusions, of which one in particular proposes complementary avenues for research.

First, we have undoubtedly not insisted enough on the originality of the Rio compromise (1992). It is unique in international economic relations in that it associates in an almost organic manner two major target areas (environment and development) and finally required actors to decide on the hierarchy between these. That the IPCC established the reality and the intensity of the climate threat is one thing; inferring from this an argument for priority to the environment over development in the hierarchy of target areas for collective international action is another that neither economics nor other scientific disciplines can justify in a normative manner. It is precisely on this point that Rio (1992) was a highly risky gamble. Rio 1992 focused the conflict of preference on a scientifically undecidable point.

The hierarchy of norms is an eminently political subject, for which only the distribution of power at the time of the Rio Conference enabled the developed countries to tip the balance in favour of their preference with, as in any compromise, considerable concessions to the developing countries’ preference for development.

The originality of Rio lies in effect in the fact that it breaks from one of the established principles of international relations: that of choosing a specific issue area precisely to avoid conflicts concerning the hierarchy of norms and to confine the expression of conflicts of preference to the positions of each party on one single subject. By associating two areas under the umbrella of sustainable development⁶⁰, Rio placed States in a game configuration that

⁶⁰ In reality, even by associating three target areas, as the social pillar is, as we know, distinct from the economic pillar and the environmental pillar in the Brundtland definition, which has been the conceptual reference of international public policies since Rio. Here, we have intentionally limited the analysis to the environment – development duo.

UNCTAD Virtual Institute Research Seminar 9-11 october 2013

required them to produce a hierarchy (at the risk of the compromise otherwise remaining in limbo), a configuration that we have shown has no other outcome than the balance of power resulting in unequal satisfaction for actors and the absolute sensitivity of this compromise to changes in this balance of power.

Next, and beyond the case of the emergence of the BASIC group, the factor of asymmetry (of power) must be reassessed. This is in principle the role of international political economy and one of the main justifications of its development in the continuation of a discipline, economic science, in which it is almost systematically excluded (or weakened)⁶¹. Yet, by a strange paradox, this factor, which was to some extent included in the DNA of international political economy, has been declining almost continuously over time – as if the economic logicism attractor should inevitably have the same effect as the one observed on the economy. The (relative) disinterest of conventional IPE for power and asymmetry could once be factually justified. The emergence of the BASIC group in the 2000s is in this respect a call for IPE to resume its research programmes on power. This is what we have initiated here by limiting ourselves to an analytical approach. This is a first stage, which calls for at least two others.

The first remains situated in the analytical field. It consists in examining heterogeneous coalitions such as the Major Economies Forum (MEF⁶²) in the field of climate negotiations, but also the Group of 20 (G20) formed in the context of the current crisis. The G7 and the BASIC group are both relatively homogenous coalitions from the viewpoint of preferences, because they are relatively homogenous in terms of development. The MEF and the G20 are recent creations in the international negotiation process that are probably not yet stabilised. Their relative heterogeneity in terms of the same criterion of preferences and of the level of development indicate that they are coalitions of powers whose rationale is not to “dictate the world order” to countries that lack negotiating power, but to attempt to solve through consensus the foremost problem of global governance: that of producing a hierarchy of norms.

The other stage lies within the field of empirical validation – and therefore within that of the difficult problem of the measurement of power and of the degree of asymmetry in the international system. For this, we can use as a guide the avenues opened in the 1980s in line with by Snidal’s “K-group” theory: the determination of a critical threshold of asymmetry that directly echoes the previous discussion and makes it possible to establish an optimal size criterion for the coalition of powers⁶³. In another vein, we can also follow the line drawn by the Occam’s razor principle, which opens up an avenue on the subject of the measurement of the relative weight of the US economy that is both robust and simple, since it mobilises only three series of variables: GDP, income/ha and the number of countries in the world⁶⁴. In any case, it is clear that this key stage in the measurement process must be based on a body of analysis. This is what we have attempted to outline here.

⁶¹ Here, we must recall the expression by Perroux 1971: “power, that recalcitrant exile”.

⁶² The Major Economies Forum on Energy and Climate was set up to follow on from the Bali Roadmap (2007) and the Major Economies Meetings initiated by President Bush. Since 2009, it has associated 17 States (including those of the G8 and BASIC), representing 80% of GHG emissions and around 80% of world energy consumption.

⁶³ Seminal work from Schelling 1978.

⁶⁴ Krugman 1995.

References

- Axelrod, Robert. 1984. *The Evolution of Cooperation*. New York: Basic Books.
- Barbier, Edward B. 1987. The Concept of Sustainable Economic Development, *Environmental Conservation* 14 (2): 101–110.
- Barrett, Scott. 2008. Rethinking Global Climate Change Governance. Discussion Paper 2008 – 81, Economics Open-Assessment E-Journal, October.
- Berthaud, Pierre, and Gérard Kébabdjian. 2006. *La question politique en économie internationale*. Paris : La Découverte « Recherches ».
- CAE. 2002. *Gouvernance mondiale*, (Report under the direction of P. Jacquet, J. Pisani-Ferry and L. Tubiana). Conseil d'Analyse Économique, n° 37, May.
- CAE. 2009. *Politique climatique : une nouvelle architecture internationale*, (Report led by J. Tirole), Conseil d'Analyse Économique, n° 87, October.
- CAS. 2011. De Kyoto à Durban : l'invention d'une nouvelle coopération climatique. *Note d'Analyse*, Conseil d'Analyse Stratégique, n° 213, February.
- CAS. 2012. Rio + 20 : l'heure du réalisme écologique? *Note d'Analyse*, Conseil d'Analyse Stratégique, n° 261, January.
- CEPII. 2011. *Panorama de l'économie mondiale* (M. Fouquin, H. Guimbard, C. Herzog and D. Unal), Working paper, December.
- COW. 2010. National Material Capabilities Data Documentation, Version 4.0, *Correlates of War Project*, <http://www.correlatesofwar.org/>
<http://www.cepii.fr/francgraph/bdd/chelem/panorama/panorama.pdf>
- Haas, Ernst B. 1980. Why collaborate? Issue-linkage and International Regimes. *World Politics*, 32(3): 357-405.
- Haas, Ernst B. 1982. Words can hurt you; or, who said what to whom about regimes. *International Organization*, 6(2): 207-243.
- Haas, Ernst. B. 1990. *When Knowledge Is Power*. Berkeley: University of California Press.
- Hallding, Karl, Marie Olsson, Aaron Atterdige, Antto Vihma, Marcus Carson, and Michael Roman. 2011. *Together Alone. BASIC Countries and the Climate Change Conundrum*, Report Nordic Council of Ministers, Norden, Copenhagen., <http://www.norden.org/en/publications/publikationer/2011-530>
- Hasenclever, Andreas, Peter Mayer, and Volker Rittberger. 1997. *Theories of International Regimes*, “Cambridge Series in International Relations”. Cambridge: Cambridge University Press.
- Helfer, Laurence R. 2004. Regime Shifting: The Trips Agreement and New Dynamics of Intellectual Property Law Making. *Yale Journal of International Law* vol. 29(1): 1-83.
- Heggelund, Gorild M. 2007. China's Climate Change Policy: Domestic and International Developments. *Asian Perspectives* 31: 155-91.
- Jacquet, Pierre. 2010. Équilibre des puissances ou gouvernance mondiale. *Questions Internationales*, May-June.
- Kasa, Sjur, Anne T. Gullberg, and Gorild M. Heggelund. 2008. The Group of 77 in the International Climate Negotiations: Recent Developments and Future Directions. *International Environmental Agreements* 8: 113-27.
- Katzenstein, Peter J., Robert O. Keohane, and Stephen D. Krasner. 1998. International Organization and the Study of World Politics. *International Organization* 54(2): 645-85.
- Kébabdjian, Gérard. 1999. *Les théories de l'économie politique internationale*. Paris: Point Seuil.
- Keohane, Robert O. 1984. *After Hegemony. Cooperation and Discord in the World Political Economy*. Princeton: Princeton University Press.

UNCTAD Virtual Institute Research Seminar 9-11 october 2013

- Kindleberger, Charles P. 1973. *The World in Depression, 1929-39*. Berkeley: University of California Press.
- Krasner, Stephen D. 1983. *International Regimes*, Cornell University Press.
- Krasner, Stephen D. 1991. Global Communications and National Power. Life on the Pareto Frontier. *World Politics* (43): 336-66.
- Krugman, Paul. 1995. Growing World Trade: Causes and Consequences. *Brookings Papers on Economic Activity* 26(1): 327-77.
- Luce, R. Duncan, and Howard Raiffa. 1957/. *Games and Decisions: Introduction and Critical Survey*. New York: Wiley.
- Meadows, Donella H., Dennis L. Meadows, Jorgen Randers, and William W. Behrens. 1972. *The Limits to Growth*. Universe Books.
- Perroux, François. 1971. Structuralisme, modèles économiques, structures économiques. *Économie appliquée* XXIV (3) : 329-51.
- Ruggie, John G. 1975. International Response to Technology: Concepts and Trends. *International Organization* 29(3) : 557-583.
- Ruggie, John G. 1982. International Regimes, Transactions and Change: Embedded Liberalism in the Post-War Economic Order. *International Organization* 36(2): 379-415.
- Ruggie, John G. 1998. *Constructing the World Polity: Essays on International Institutionalization*. London: Routledge..
- Schelling, Thomas C. 1978. *Micromotives and Macrobehaviors*, Norton.
- Snidal, Duncan. 1985a. Coordination Versus Prisoners' Dilemma: Implications for International Cooperation and Regimes. *American Political Science Review* 79(4): 923-42.
- Snidal, Duncan. 1985b. The Limits of Hegemonic Stability Theory. *International Organization* 39(4): 579-614.
- Snidal, Duncan, and Alexander Thompson. 2000. International Organization. *Encyclopedia of Law and Economics*, London, Edward Elgar, vol. 5: 692-722.
- Stein, Arthur A. 1983. Coordination and Collaboration: Regimes in an Anarchic World. In *International Regimes*, edited by Stephen Krasner, 115-140. Cornell University Press.
- Stern, Nicholas. 2006. *Stern Review on The Economics of Climate Change*. http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/sternreview_index.htm. UK Treasury.
- Sukhdev, Pavan. 2010. TEEB Synthesis Report Mainstreaming the Economics of Nature. Geneva: UNEP.
- Tubiana, Laurence. 2012. Aurons-nous un jour un accord global sur le climat?" Special issue n°8 (January 2012) *Les Échos: 2011-2012, comprendre la crise : ses origines, les scénarios de sortie*.
- UN-WCED. 1987. *Our Common Future*. United Nations World Commission on Environment and Development (under the direction of G. H. Brundtland). Oxford: Oxford University Press.
- UN. 2012. *The Future We Want*. Rio+20 Conference Final Outcome Document, 19 June 2012, <http://rio20.net/wp-content/uploads/2012/06/N1238164.pdf>
- Van Parijs, Philippe. 2010. « Un bon compromis ? » *Le Soir*, 23 October.

Table 3: The rise and fall of the Rio (1992) regime

<i>Time</i>	COLLECTIVE SITUATION			<i>Issue linkages</i>	REGIME CHARACTERISTICS		
	<i>Distribution of power</i>	<i>Social objectives</i>	<i>Consensual knowledge</i>		<i>Institutions</i>	<i>Principles and rules</i>	
1992-2000 <i>Rio regime</i>	Predominance of US and EU	Environmental: climate change, biodiversity, desertification, Agenda 21	Global warming (IPCC) Universal solutions: internalization of environmental externalities (market based instruments)	Poverty and environment (Brundtland report) Globalization and sustainable development (WTO Preamble)	Commission on Sustainable Development (CSD) UNFCCC Kyoto Protocol (KP) Convention on Biodiversity (CBD)	Common but differentiated responsibility Polluter-pay principle	
2000-2002 <i>Erosion</i>	Predominance of US and EU	Environmental: climate change, biodiversity, Agenda 21	Global warming (IPCC) Sustainable development recipes: .internalization of environmental	Poverty reduction <i>as</i> development	CSD UNFCCC KP CBD + Foundations	Common but differentiated responsibility Polluter-pay principle	

<i>Time</i>	COLLECTIVE SITUATION			<i>Issue linkages</i>	REGIME CHARACTERISTICS		
	<i>Distribution of power</i>	<i>Social objectives</i>	<i>Consensual knowledge</i>		<i>Institutions</i>	<i>Principles and rules</i>	
		+ Millenium development goals (MDGs)	externalities (market based instruments) + .Public private partnerships (PPP), Corporate social responsibility (CSR), private standards				
2002-2012 <i>Contestation</i>	US and EU contested by the BASIC	Environmental: climate change, biodiversity, Agenda 21 + MDGs + Green growth	Climate gate Stern report Sukhdev report No development recipes (<i>we all know we don't know</i>)	Green economy and social inclusion	Un-institutionalization (Learning platforms/networks) Un-statization (voluntary commitments) Un-UNisation (Copenhagen	Common but differentiated responsibility Polluter-pay principle Consumer-pay principle	

<i>Time</i>	COLLECTIVE SITUATION			<i>Issue linkages</i>	REGIME CHARACTERISTICS		
	<i>Distribution of power</i>	<i>Social objectives</i>	<i>Consensual knowledge</i>		<i>Institutions</i>	<i>Principles and rules</i>	
			Policy experiments: Randomized controlled trial (MDGs) Millenium villages (MDGs) Emission trading schemes (KP) Payments for environmental services (CBD)		climate change accord)		
2012-2015 <i>Refoundation ?</i>	A large spectrum of active players without clear hierarchy: US	A large spectrum of unsolved problems: Environmental: climate change, biodiversity, Agenda 21	Sustaining the momentum (Stern Report 2.0, IPCC report AR5) No sustainable development recipes	MDGs and Sustainable development through Sustainable development goals (SDGs)	Re-institutionalization (Learning platforms/networks) Re-statization (voluntary	Common but differentiated responsibility Polluter-pay principle Consumer-pay principle	

<i>Time</i>	COLLECTIVE SITUATION			<i>Issue linkages</i>	REGIME CHARACTERISTICS		
	<i>Distribution of power</i>	<i>Social objectives</i>	<i>Consensual knowledge</i>		<i>Institutions</i>	<i>Principles and rules</i>	
	EU	+	(we all know we don't know)		commitments)		
	BASIC	MDGs			Re-UNisation		
		+			(Copenhagen		
	Middle income	Green growth	Sustainable		climate change		
		+	development goals		accord)		
	Least developed countries	Social inclusion					

Source : Authors