Opening Markets in Emerging Countries and its impact on National Firms: A Comparative Study between China and India

Ouverture des marchés dans les pays émergents et impact sur les firmes nationales : Etude comparative de la Chine et de l'Inde

INTERNATIONAL PROGRAM FOR ADVANCED STUDIES (IPAS)

FINAL REPORT

This final report is organised as follows:
1. It provides the composition of our group
2. It recalls briefly the initial hypothesis of our work and how they could evolve thanks to the invaluable support provided by the IPAS fellowship.
3. It summarises the key questions addressed and achievements during the IPAS fellowship, first presenting them in the linear way they came, so as to retrace the progression of our ideas.
4. It then offers the outline of the book we want to collectively write, that reorganises in a comprehensive way the results and finding we arrived at.
5. As an opening to future theoretical work it offers a conceptual proposal for going ahead in analysing current processes of globalisation in emerging economies.

1. Composition of the group

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[1] Dr. Debashis Chakraborty, Indian Institute for Foreign Trade, New Delhi, India, was initially to be part of the program, unfortunately was unable to join.
[2] These colleagues, though not formally beneficiaries of the Columia-MSH IPAS grant however participated with key inputs our meetings.

2. Evolution of key hypothesis

This research attempted to derive larger conclusion on the works conducted since 2005 by a group of economists gathering Chinese, European and Indian colleagues. Especially, this project takes place within a larger intellectual attempt at comparatively understanding the historical specificities of Chinese and Indian modes catching-up within a context of globalisation of production processes that was engaged by the team members along with other colleagues, under the direction of JF Huchet & J Ruet since 2003. The project draws from material and investigations accumulated throughout, and the specific output of the collective reflection that the IPAS grant allows will be a book, of which a tentative outline follows[3].

The initial research aimed at comparing the modes of opening of Chinese and India domestic markets and characterising their impact on the modes of modernisation of their industry since the mid 1980s till date. It especially examined the impact of opening on Chinese and Indian enterprises, in terms of their organisation and industrial evolution of the sectors in which they operate. The evaluation focused on three main areas:

1 – The impact on industrial policy and the relationship between the economic administration and firms.

2 – The impact on the corporate governance of industrial groups, with a definition of governance that encompasses all external stakeholders of firms.

3 - Technological catching-up and emancipation, firms innovation and national innovation systems.

Adding on preliminary work on these three fields, the IPAS fellowship aimed at integrating them by examining the linkages between internal industrial organisation and sectoral industrial organisation. Through the analysis of ownership change, issues of scale or agglomeration economies and learning, selective modes of entry and partnerships, public policies, we wanted to underline the specificities of Chinese and Indian insertion into the world economy.

[3] Europe: LSE (DESTIN & ARC), University of Barcelona, University of Bologna, University Rennes II, CERNA (Ecole des mines), EHESS (School for Higher Studies in Social Sciences), CEPII (Centre for Economic Prospective, under the French Planning Commission), University Paris III; India: Centre for Human Sciences, National Council for Applied Economic Research, Observer Research Foundation, Friedrich Ebert Stiftung, Jawaharlal Nehru University, India Development Foundation, Rajiv Gandhi Institute for Contemporary Studies, Jadavpur University Calcutta, Indian Institute of Management Ahmedabad; China: Chinese Academy of Social Sciences, Wuhan University of Commerce, Ministry of Technology.

With the view to complement the existing empirical literature on quantitative industrial change in these two countries, our research attempts at empirically and theoretically characterising these evolutions in terms of stylised qualitative organisational change, influence on business models, meso-level economic & industrial interactions.

If this could largely be realised, some deepening in our theoretical framework came and the key inflexions in our work can be summed-up as such:

Industrial rise of India and China were not predicted by theory. A strong conclusion would be that theory was inadequate. We introduced the counter-hypothesis that it may not possible, that there may not be any general theory of catching-up modes for each of them came arose different national trajectories, and developed at a different 'stage' or rather 'structure' of the world economy. This counter-hypothesis, we believe, is useful if articulated to the (positive) idea that, however it matters to analyse and compare different forms or different economics and (as articulated to) political economies of various catching-up sequences. What in that sense characterises China and India today became the overarching question to sustain our analysis of the above-mentioned questions.

The specificity of our focus, to look at enterprises got confirmed during the three months of joint work, developing a common methodology to replacing them within industrial trajectories, within global evolutions, but as drivers of change through their strategies and business models, then elating them with the economic and political environment in various structuring ways. The key explanatory mechanisms we offered was that the learning and adjusting capacities of enterprises would in turn unfold into as many different business models that will provide as many responses from the (various levels of) the state's political economy questions.

We chose to answer out three sets of questions through industrial economics questions, that later became the organising structure of our work (locations, clusters, technological catching-up, creation of brands, integration to world networks of partnerships, creation of sectoral advantages/insertion into value chains), that all sustain national and local development and industrial policies, and in turn colour and orient the process of exiting socialism.

We developed for this a meso-economic look that provided an integrative frame for our three initial questions, as well as a fertile ground to discuss the nationality of state policies along with the micro aspects (local as well as global) of individual firms.

Our work, though it started by assessing the commonalities and differences between Chinese and Indian political economy systems, thus did not aim at comparing India and China on a face value, term-to-term. However, the questions are similar for the two countries compare in issues at stake, in terms of requiring innovative solutions to transform their economies a way unseen before in history, at a point of time where globalisation means globalisation of productive processes (largely intra-firms), not only of trade of finished product.

Looking at different actors in their locations with a similar lens, considering that both the state and the firms are the actors of the same play, that are mediated not only by markets but also by national innovation systems, value chains, innovation networks, partnerships, clusters, client-to-client relationships, forums and systems of public incentives (etc.) allowed us to arrive at this richer picture.

That forced each of us to go beyond and overcome her/his own field of sectoral or thematic competence, and our final work will materialise into a book where some chapters mix policies, trade figures and industrial structures, some others mix different sectors with the issue of innovation and development, or some other again mix different firms from totally different sectors but with similar strategies of capitalisation and similar relationships to their states.

3. Key Questions addressed and achievements during the IPAS fellowship 01/01/2007 – 31/03/2007

- A synthesis and a linear account -
by J.Ruet

Work done and results achieved

We recalled the main regimes of industrial regulation and political economy sequences in China and India in a comparative way and looked at them in as much that they have contributed to shape characteristics that till today matter in understanding the response of their firms to globalisation. In particular, we compared how these regimes have determined the sectoral industrial structure, initial ownership structures, industrial organisation of firms, origins of innovation systems. We have assessed how these dynamics have, in the Chinese and Indian case, added to the specifics of scale and agglomeration issues of the sectors we study (electronics, automobile, textile, steel, biotechnology). This gave us a framework to discuss the new policies currently considered by each government (such as speeding-up the technology transfer through mergers in China, and further opening-up of technological and scientific system in India). This formed the material for two chapters of the book we are writing.

Based on this, we outlined key reasons why one has to look at classical issues of industrial economics in a dynamic perspective; especially we distinguished issues which are related to internal organisation and clusters of firms on the one hand (firm-to-firm), and on the other hand issues that involve the market and its regulations. The IPAS fellowship has thus been very instrumental in allowing us to bring together this analytical framework.

Our project could then start bringing into this common comparative framework the material and stylisations that our research had arrived at prior to the IPAS fellowship.
In particular, we addressed several issues that will constitute as many chapters of our book (see below):
- We discussed issues such as preferred mode of positioning in the production chain, both in static and dynamic (Jean-François, Ajitava, Joël).
- Xinxin, Ajitava, Joël and Wang Wei dealt with preliminary elements of micro-socio-economics and on how they shape organisation, business strategies, and innovation

structure at the scale of a cluster. The concept of technological learning was discussed with Rigas Arvanitis, as it can serve as a bridge between the organisational and sectoral issues: external links are determining the way internal learning takes place, and provide some indication on differences between China and India

- Xinxin and Joël discussed the determinants for market vs. State-driven and for international vs. national-driven innovation, and discussed the linkages between national innovation systems and firms' own business models to explain technological catching-up.
- We detailed how the State-business relationship shapes Industrial Organisation & promotes industrial dynamics in the context of post-socialist industrial transformation and production globalisation, particularly with inputs from Jean-François, Joël, Xinxin, but also inputs from colleagues of our group beyond the IPAS program: Rigas Arvanitis, Xavier Richet, Jean Ruffier.
- Wang Wei and Jean-François explored in a comparative way the effects of different corporate governance in the two countries, borrowing form the works from our Indian colleague Chalapati Rao.

The IPAS fellowship was also the opportunity for the Chinese and Indian scholars to engage with French academia, with presentations at EHESS, Ecole du management de Paris, Casa Asia Barcelone, and a final seminar co-organised with the help of Xavier Richet and with the support by EHESS, Reid Hall, University Paris 3 and CERNA (Ecole des mines) at Maison Suger on 22nd and 23rd March.

Main points of this seminar came as follows:

The seminar was the opportunity to discuss further the relationships between stylised facts of the Chinese and Indian reforms and industrial findings:

- On the link between Conglomeral structure in India /specialisation in China and Corporate Governance: the way boundaries of these companies have evolved and allocation of capital as related to CG
- on taking a perspective, for instance to see that results could apply to France or Europe even if these companies clearly show specific growth strategies. This could open some space for further integration of our work as to see how similar views, objectives, constraints are shared with companies in Europe and in the world economy; and to see where from some specificities start for China and India, that are better seen only at the case study level)
- on the objective to master the whole chain, the example of China and India balances the view from developed countries to specialise in high value and high technology; in fact, there is already a process of intra-branches exchanges. The

question thus becomes how to mix up with existing value chains? With this perspective we can take the results and add new elements (like huge diversity, huge range: China wants to enter aeronautics; both to combat the duopoly but to see where and how to mix in it). The real issue is: what is the scope and boundaries of these companies today: where do they stop, what do they internalise today? Which is a very classical and structuring question of industrial economics.

- The downward organisation of the industry (sub-contracting; the way they connect on foreign markets or exclusively on domestic market) is to be expended in the final book, as is a clear assessment of intangible investment like brand (today in developed world, physical Invest, R&D & market invest are nearly comparable; textile and car brand factor is as important as traditional R&D in traditional sectors).
- The role of geographical organisation has been clearly highlighted as a way to provide support and incentives to promote agglomeration effects; discussions on catching-up are limited to technology transfer & capacity to digest/reprocess etc. link with idea of technology sourcing in their own country
- Role of both states in WTO negotiations; this connects to issue in the book

The idea to further distinguish 3 types of markets (in China and India) developed from the seminar:

- Local/internal: companies don't see the market, see the client and not the contours of the market small/medium company
- National market: you know you can go from one place to another
- Strategic market: the State decides who is the player

Similarly foreign markets can be disentangled according to whether there is a direct access or access through a client (statistically both are foreign exports but we have to differentiate).

Localisation effects will be taken into account in the book (choice of location and constraints revolves around: funding/financial, firm constraint/sectoral, local manpower, relations with govt etc.). An encompassing vision of governance provides the accurate framework to discuss this.

4. Book Outline[4]

Global Chinese and Indian industry: Economic opening, political economy of reforms,

Ed. JFH/JR

Industrial rise of India and China were not predicted by theory. A strong conclusion would be that theory was inadequate. An ambitious aim would then be to change the theory to predict better. However, this collective work in a sense introduces the counter-hypothesis that it may not possible, that there may not be any general *theory of catching-up modes* (China, India, before them South-East Asia, South Korea, Japan, before that even the USA in the late 19th century and continental Europe over Britain in the early 19th), for each of them came arose different national trajectories, and developed at a different 'stage' or rather 'structure' of the world economy. This counter-hypothesis, we believe, is useful if articulated to the (positive) idea that, however it matters to analyse and compare different forms or different economics *and* (as *articulated to*) political economies of various catching-up sequences. What in that sense characterises China and India today?
The specificity of our focus is to look at *enterprises,* within industrial trajectories, within global evolutions, but as drivers of change through their strategies and business models, enterprises as among the key actors. Enterprises have been understated in theory because of the faith in the role of the State and government policies (even for the catching-up of the 'Tigers' countries), issues which many people have already discussed.
Our book will briefly discuss what we take from this literature about the role of the State, but not discuss anew in isolation from real firms.
But the central topic, the locus of our book, is companies, as economic actors which don't bring only their money and learning, but also relationship with the economic and political environment in various structuring ways. What are the learning and adjusting capacities of enterprises will unfold into as many different business models that will provide as many responses from the (various levels of) the state.

The focus is political economy but applied to industrial economics questions: locations (clusters…), technological catching-up, creation of brands, integration to world networks of partnerships, creation of sectoral advantages/insertion into value chains, that all sustain national and local development and industrial policies, and in turn colour and orient the process of exiting socialism. To do this, there is no use anymore to compare branches, because they are globalised; even the comparison of national companies is less relevant because many become multi-nationals. Neither the macro nor the micro levels are fully satisfying, and the contribution of this book is to explore these industrial and political-economic dynamics at the *meso* level. We need to

[4] This outline indicates with initials the lead writers then the contributors; the lead writer is in charge of writing the first draft and integrating the comments of the other contributors; other contributors are then indicated in alphabetical order, unless second writer has a key contribution along with the first one. Some chapters indicate some inputs/quotes of authors who are referred to but do not get authorship in the chapter.

compare the value chains (innovation, design, manufacturing, sales), put in perspective internal organisation of firms and structural organisation of sectors, global organisation of production and local compulsions/advantages of districts and clusters, networks of firms.
This includes contrasting large trends with today's exceptions that could set a trend: innovation dynamics in a world of copy, dynamism of large groups where small firms lack competitive advantage or vice-versa according to sectors, regions, countries.
This book will not aim at comparing India and China on a face value, term-by-term; the two economies are different because the two systems and the two countries are different. However, the questions are similar for the two countries compare in issues at stake, in terms of requiring innovative solutions to transform their economies a way unseen before in history (even in post-soviet USSR or in South Korea), at a point of time where globalisation means globalisation of productive processes (largely intra-firms), not only of trade of finished product.
The institutional environment, the interactions between actors and their spaces, the strategies of firms, are three sets of locations where to ask common questions on China and India today. They structure this book.

0. Introduction
Sets the plan of the book as well as project and academic context.

Part A - Institutional Environment of Trajectories of Opening

This part reveals how the positioning if the Chinese and Indian economies in the world economy were strongly determined by the industrial structure they gained from their socialist experience. Of course, larger issues of political economy of phasing reforms in time, but also organisational and sectoral structure of their firms as inherited from the earlier sequences of political economy. We articulate how globalisation of production within firms and global partnership dynamics interplay on these strong structural elements to explain the commonalities and contrasts, first in the mode of opening and second in the mode of insertion in the global economy by the two countries and their industries.

1. Trajectories of Industrial transformation in China and India
JR/JFH/FL
For the two countries, this chapter :
a – recalls the successive regimes of political economy of industrialisation and their impact on the industrial structure today
b – states how the industrial structure determined the modes of opening these economies have shown
c – assesses the compared opportunities of the two industries in their insertion in the world economy

The chapter details the main regimes of industrial regulation and political economy sequences in China and India in as much that they have contributed to shape and determine the sectoral industrial structure, initial ownership structures, industrial organisation of firms, origins of innovation systems, have added to specifics of scale and agglomeration issues. It especially gives a very brief account of early industrialisation before 1949 in China and 1947 in India, briefly recalls the socialist and developmentalist periods of 1949-1978 in China and 1947-1984 in India, with the 'layer industrialisation' in China and 'Licence Raj conglomerates' in India, to expand the context and sequences of reforms since then. We discuss the new policies currently considered by each government (such as speeding-up the technology transfer through mergers in China, and further opening-up of technological and scientific system in India). From the figures of manufactured imports and exports and structure of capital ownership, it contrasts the degree of positioning in global industrial processing for these two countries and for their enterprises.

2. Stylised issues of opening-up and firm insertion into the world economy

AR/JR/WW/JFH

This Chapter provides some stylisation and modelling for the dynamics of opening of the two economies. It contrasts for the two countries the different modes of entry by foreign firms (or different sequences in these) that were observed for the industry: from JV, licensing to subsidiaries. We summarise and stylise the differences in entry modes observed in the two countries, and outline current evolutions across several sectors.

Then, from integrating the political economy constraints that the two States faced, we derive differences between the objective functions of the State so as to explain the differences in policies. We thereby suggest how the specificities of these two countries have to be factored in into modelling, as a first series of models. A second series of models would release this constraint and show how, given policies that favour general economic welfare, costs structure differences between Indian and Chinese companies explain differences in longevity of JVs although the market has by now become competitive.

A second modelling brings about the positive externalities in inter-branch innovation that Indian groups derive from their conglomeral structure. It is based on inter-temporal learning from a JV, that allows applying the gained processes or technologies to other branches. This attempts at renewing this kind of modelling by integrating the context of globalisation of production and attractiveness to JV seen from foreign companies perspective. We use these models to discuss the current policies.

We discuss the specification of (otherwise classical) issues of scale and agglomeration in this global context for these economies.

3. Sectoral ownership transformation and industrial growth

JFH/KXX/XR/JR

Taking several sectors which have seen their dominant players moving from the public to the private firms over a span of twenty years, we illustrate the linkages that one sees between sectoral organisation/environment on the one hand and internal organisation of firms on the other hand, especially in terms of innovation and evolution of business models. We re-interpret the observed modes of opening at the sectoral level the, and how sectoral ownership transformation link-ups to globalisation in both countries.

We take examples from Electronics in China where ownership and global markets have been strongly linked (JFH/KXX), steel in China and India (JR/elements from Gilbert Etienne) where the pattern of ownership transformation is less visible at the sectoral level but where dynamic business models intertwin private ownership and globalisation, and the Automobile Industry which shows a stark contrast between both countries (XR/JR).

4. Governance Implementation process and Firm-society Relationships
WW/ JFH/CR/AR/JR
With a broad definition of Corporate Governance as extended mechanisms of control, we look at how two mechanisms shape the implementation of policies and framing of objectives: one the one hand, the remains of the former socialist system, and on the other hand globalisation. Understanding the specificities of regulation in India and China requires considering that the legal systems in these countries have their own history, that the existing systems have proved successful at reinventing themselves while definitely having in view the capacity to enter global systems.
The chapter focuses on regulation of performance, innovation, investment strategies, and labour issues. It argues that in China there is a system of multi-principals that, in contradiction with theory previsions, leads to a large output; at least this stands true at a certain step when (i) one had to get out of the socialist system of production and (ii) there was less competition (before WTO and before development of companies).
We develop the following arguments:

- the remaining role of the State in China to directly pilot the CG
- the historical difference that characterises China as compared to India that merges more easily into global codes
- market structure: possible distortions in China as compared to India opening to FIIs while integrating the lessons learnt from South-East Asia in terms of limitation clauses
- a continued stark contrast in accommodating the 'stakeholders', that lies with the government in China while it takes the form of 'CSR' for Indian firms

We conclude by a theoretical outlook, delving on the classical argument that CG gives better performance and enhances the position to take risk/get funding; putting this back into the context of national regulations; even separation between ownership and management is not performing, because it doesn't reduce transaction costs.

Part B – Actors & Spaces in Industrial Globalisation: industrial policies and development, towards innovation economies, the governance of industrial globalisation

This part outlines the key reasons why one has to look at classical issues of industrial economics in a dynamic perspective and at a meso-economic level (in respect to both, by integrating the strategies at the firm level and the compulsions/policies of the state). We distinguish issues which are related to internal organisation and clusters of firms on the one hand (firm-to-firm), and on the other hand issues that involve the market and its regulations. We examine the specifics of the relationship between the state (we disentangle between the Central and Local State) & Business, the local dynamics and national relevance of industrial clusters that we analyse as providers-to-clients institutions rather than 'markets', taking-up the

question of innovation allows us to question the issue of integrating value chains and structuring large vs. small companies sectors in post-socialist economies, and we sum up by returning to the issue of larger governance.
This part collates the theoretical and stylised elements at the meso-economic level and draws in an illustrative manner from case studies/sectors/companies, while part C directly deals with the dynamics of firms.

5. Central State, Local State & Business
JR/JFH
In both China and India, as a result of the history of industrialisation and reform, the State and business vest a close relationship. Today, the development of business feeds back to issues of re-balancing the central and local projections of the State. In this chapter we detail how the state-business relationship shapes Industrial Organisation & promotes industrial dynamics in the context of post-socialist industrial transformation and production globalisation, and how the various levels of the State can make use of the current economic dynamics. We address this through classical questions of political economy to illustrate that today's India and China provide original and innovative outlook to key questions:

- On efficiency: what is the perceived State's role to minimise transaction costs, how to broaden the sense of this? (short run & static of neo-classical vs. long run efficiency),
- On equity: how can the State adapt today to the joint presence of domestic and foreign businesses,
- On industrial policy and some regulatory clauses put by governments (example: in China: cannot decrease employment) and competition,
- On development programs and local use of business dynamics to renew development models.

In particular, we briefly put each of these elements in the backdrop of previous catching-up movements in Japan, South Korea...

6. The local dynamics and national relevance of Industrial clusters
RA (+quotes from DC/DS?)
We deal with some elements of micro-socio-economics and on how they shape organisation, business strategies, and innovation structure at the scale of a cluster. The concept of technological learning serves as a bridge between the organisational and sectoral issues: external links are determining the way internal learning takes place, and provide some indication on differences between China and India.
Especially, clusters host dynamics where small companies get the technology from their clients, which help setting the production line. We characterise the impact of the following characteristics: non-exclusivity of rights; added levels of subcontracting and subcontractors as idea provider to clients, companies responding to clients but thus blind to the market, polarisation effects as the market goes to the cluster, not the reverse.
The chapter provides elements on the pros and cons of clusters in the framing and expansion of (public) industrial policies as well as in larger policies to lead Chinese and Indian economies towards qualitative growth and knowledge-based economies.

7. **The drivers for innovation in globalising, post-socialist, economies: Market or State motives for innovation?**

JR/KXX

Both Chinese and Indian governments aim at promoting 'qualitative growth' and 'knowledge-based' economies. We discuss the determinants for market vs. State-driven and for international vs. national-driven innovation, as well as the current level of industrial re-organisation or of business models change/stabilisation. This chapter looks in a sectoral perspective and addresses industrial economics issues like how technical integration combines with market structure or the role of the State. We survey questions like:

- does an industry have to develop as a whole sector or can it use globalisation to position itself in the value chain and then later show some mobility: we address this through different technological regimes and economic actors of different industries[5] that we cross with the situation at initial stage: whether the industry exists, or not.
- country specificities: initial stage: property/ownership structure; combining with other elements, reflection on possibility and pros and cons of different 'modes of entry' on the possibility to build a whole value chain, position yourself into value chain or move within a value chain, according to each mode of entry
- on different industries, sequencing between different driving forces (in time; how they interact; link-up sectors/actors with influence: low/medium/high), which kind of innovation (incremental, process, product; role and form of public support: either as a 'public good' way available to all firms, or through contract-specific agreements with national research agencies) the evolution from system and competence building to performance.
- list and critique the different existing theories in the case of China and India, how do they have to be discussed?

8. **The place and time for innovation: From Agglomeration to Global effects; Vertical Integration vs. Value Chain**

RA/AR (with +quotes from DC/DS + inputs JR)

This chapter details the internal organisation issues of firms in China and India, as well as situates the firms in their direct cluster environment.

It re-examines the question of vertical integration vs. value chain issues such as preferred mode of positioning in the production chain, both in static and dynamic. But, in contrast to previous chapter, it aims at contrasting the experience of small vs. large enterprises keeping in mind the inheritance of former regulatory regimes, as well as the specificities in terms of ownership compulsion (State intervention beyond a certain scale in China, possibilities of sustained self-control on capital thanks to fast growth in India…).

- a vertical integrated structure vs. a value chain: in terms of efficiency, which one is better according to size?
- keeping in mind the Chinese and Indian context, what is the impact in terms of employment (monitoring costs)?

[5] (car industry: vertical organisation to master the whole technology system, steel: slightly less some competition welcome, electronics: a global value chain quickly integrate into it but needs update, textile: much larger variety doesn't need sophisticated innovation, IT/BT: innovation-based).

- within the same industry, we contrast the two options, taking the examples of textile/ parts components/ automobile.
- we link the evolutions of large firms' strategies to general economic environment (for instance, strategies of energy securitisation or of diversification, cf. Reliance example).
- we discuss the issues of exit of small scale sector protection, with trends towards integration in textile in India

Part C – Firms in Global Production & Innovation

The concept of opening refers to the idea of a national economy that implicitly has comparative (sectoral) advantages. At this stage we have developed and exemplified enough the inter-relations between territories, policies, and enterprises at the 'national' level, to engage now into the global networks of firm-to-firm relationships, and the strategies and business models of firms look at from their own perspective. A part of opening strategies at an initial stage, these strategies now increasingly develop at variance and in an autonomous manner from state compulsions, at least for India, while the Chinese government attempts to allow some scope for these in a way that could complement its own strategy of qualitative modernisation. We illustrate previous points by drawing from firm-based case studies. Here we detail from which sector we draw contributions, but the organisation of each chapter is thematic and not merely sectoral, ranging from the issue of local-global partnerships as technological and brand catching-up moves, business-model -specific modes of innovation, global investment strategies of emerging Indian and Chinese MNCs.

9. Partnerships, sectors building and firms technological catching-up
XR/JR

Here we discuss those industries where a strategy of just positioning firms within a value chain can succeed only up to a point, and where one needs to either build a sector as a whole or do nothing, like the car industry, but where this attempt is at the same time completely firm-driven (we will briefly discus the part and components industry though, as a related industry). We discuss the exemplary sector of automobile industry in a comparative perspective between the two countries, seen from the point of view of both the strategies of the National industries and the foreign makers, and substantiate the idea that where the industry has been left with the larger latitude and the less capital restrictions (India) technological transfers and brand building have develop din a greater fashion than where protection was provided (China); in turn this (paradoxically) gives larger scope for an aggressive industrial policy.

10.On Innovation and Value Chain Positioning, and National Innovation Systems
KXX/JR/RA
Here we discuss with innovations aspects directly related to positioning a firm into an existing value chain.

We provide stylisation of firms' trajectories. We start with a preliminary discussion on differentiated difficulty in copying/innovating in various sectors, depending on technological contents but also organisational context in terms of market, competition, segmentation (cf. works of John Zysman). Electronics in China – innovation and markets (KXX/JFH), IT&BT in India and the industrial academia (JR/KXX), Textile sector and issues of survival strategies within the value chain, (KXX/DC). An essential question we address is on the pre-eminence of international markets over the national markets; we address in this perspective the recent move by foreign companies in setting R&D centre in these two countries.

11. Integration to global markets & Investment strategies of the big industry

CM/JR/XR

Putting our previous interviews into the literature on insertion of southern firms in the global economy, we test the idea (and its limits) of seeing international growth of Chinese companies as expansion-driven while Indian companies would be primarily technology-driven. Further, if one contrasts the idea of off-shoring by western companies, to near-shoring by emerging companies, another difference between Chinese and Indian companies would be linked to the near-shoring approach. We would restrict ourselves to the private sector, with the exclusion of strategic sectors like energy, resources, etc.

5. A theoretical outline

An issue that was discussed in our group relates to a theoretical concept to reconcile current developments in China and India and the theories of development/catching-up: the complementarity between « Catching-up Growth » and « Globalisation of Firms - induced Growth ».

Let us detail two key concepts for the understanding of economic dynamics in the contemporary world, that will be central in our analysis, Catching-up Growth and « Globalisation of Firms - induced Growth ».

Catching-up Growth occurs beyond a threshold of capital, through availability (imported or national) of technologies having reached a low cost at the mid of their life cycle trajectory (they have been conceived, tested, they still remain relatively efficient in numerous contexts compared to 'new' technologies). This growth can operate across various modes, as its slow taking-off in the Indian case shows or more rapid and sudden implementation in the Chinese case contrasts. It articulates to national policies: initial capital accumulation through public finance, territorial equipment, 'pro-business' reforms in India in the 1980s, industrial restructuring in China, and these dynamics are now more focused geographically.

This mode of catching-up has redistributive impacts, but is mostly based on:

- Scale,
- An articulation of 'non-strategic' industries (even if 'technological catching-up' happens),
- An impact that is enough to give a notable macro-economic growth, for India, for instance, a 6% for the last twenty years under different regimes, and for China the whole of the growth from the mid-1980s till date.

Similar dynamics happened post-war in Europe, or for Japan and South Korea. It is not necessarily an 'endogenous growth', far from that, but it articulates to a sound auto centred dynamics and to territorial economy as a structure.

By contrast, in what we call « Globalisation of Firms - induced Growth », we mean the territorial and organisational recomposition through (internal and external) multi-nationalisation of the productive processes and R&D, from conception to commercialisation. These processes intra and inter firms offer new economic potentials, that turn into new business models for entrants firms. The impact in terms of growth is conversely characterised by:

- Differential effects (of specialisation among which 'niches' but not only) agglomeration (network production and simultaneous presence of varied competences on a localised territory: this economy is not de-territorialized, but re-concentrated),

- A strategic character (technological and organisational),
- On the short run it accounts for only a limited part of Growth National Product, but for an important part of revenue polarisation, segmentation of labour markets, choices on strategic investments.
- It is what allows the emerged part of the economy to 'globalise', and certainly is at the core of the early formation of multi-national companies from catching-up countries. These latter aspects, all things being equal, are more advanced in China than in India as far as energy and raw material sourcing is concerned. But these mechanisms are however more advanced in India as far as globalisation of service and large industry companies is concerned, especially in the higher end of value added and value chains.

In other terms, « globalisation growth » allows new models of firms, but thus leads to difficulties in 'measurement'. It is often linked to economic facts that are of an organisational nature more than a direct quantitative nature, like 'quasi-integrations', acquisition of strategic assets towards price making power on a niche, or simply technological: distinction between modern and classic biotechnologies. Both economic information and the general debate tend to neglect these characteristics, and underrate these dynamics with an econometric system that was framed for national economies and material production. Simplistic analysis in 'liberalisation' terms is not enough to explain the rapid rise of large groups.

It calls for more refined level of analysis:

- direct interviews to analyse the industrial economics of (often unstabilised) business models,
- analysis of technological contents of trade with respect to capital control over its various sub-segments,
- analysis of assets creation and portfolio building, analysis of assets specificity,
- indirect measure through evolution of input-output sectoral linkages.

These are a few analytical techniques we perform here. But, corporate and industrial issues further link-up with public governance. A key point we shall study is the degree of dissemination and integration of know-how across districts of a same economic territory, and the possibility to move from the catching-up of a few firms towards the national catching-up, and especially focus on the public policies and public-private interaction on these issues.