

**Capitalist dynamics in a reforming  
state socialist economy:  
labour markets, class and inequality in a  
Chinese High-Technology Development Zone**

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## *ABSTRACT*

Quantitatively-oriented sociological research on inequality and stratification in post-Mao China is mainly concerned with understanding how material rewards and chances for social mobility accrue to individuals endowed with different levels of human, social and political capital. The presence of structural determinants of inequality, when acknowledged, is generally attributed to sectoral, organizational and geographical factors or to institutionally-generated labour market segmentation. The role of social class as a structural determinant of inequality has instead been entirely neglected.

This thesis addresses the gap in the literature by applying Wright's neo-Marxist class analysis to a case study of employee compensation and job search networks in a Chinese New- and High- Technology Development Zone. The study combines qualitative evidence collected during twelve months of fieldwork in Nanjing with quantitative data gathered through a survey of 98 randomly-selected white collar employees. Employees were assigned to a class location according to their levels of skill and authority. The study then assessed the effect of class location on the distribution of wages and benefits and on the use of job search networks.

The results show that (a) class location has a significant effect on the distribution of wages and benefits net of individual-level attributes; (b) class location mediates the effect of individual-level factors such as education and work experience; (c) the mobilization of social networks during the job search process shows clear class patterns. Although the research is based on a single case study, the results suggest that structural determinants of inequality in China cannot be univocally attributed to socialist legacies and market imperfections, but that they derive at least in part from the emergence of capitalist class relations.

## Statement of Candidate

I certify that the work in this thesis entitled "**Capitalist dynamics in a reforming state socialist economy: labour markets, class and inequality in a Chinese High-Technology Development Zone**" has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research and it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged.

In addition, I certify that all information, sources and literature used are indicated in the thesis.

The research presented in this thesis was approved by UTS Human Research Ethics Committee, reference number **2008-83** on **17 March 2008**.

Ivan Cucco (Student No. 42411858)

29 July 2011



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Ivan Cucco

Sydney, 1 August 2011

## **List of Acronyms**

|        |   |
|--------|---|
| CA     | Correspondence Analysis                               |
| EUCCC  | European Union Chamber of Commerce in China           |
| FDI    | Foreign Direct Investment                             |
| GDP    | Gross Domestic Product                                |
| GVIO   | Gross Value of Industrial Output                      |
| JETDZ  | Jiangning Economic and Technological Development Zone |
| NETDZ  | Nanjing Economic and Technological Development Zone   |
| NNHTDZ | Nanjing New- and High- Technology Development Zone    |
| PRC    | People's Republic of China                            |
| SOE    | State-Owned Enterprise                                |
| YRD    | Yangtze (Changjiang) River Delta                      |

## 1. Introduction

In post-reform China, rapid economic growth has been accompanied by a dramatic increase in income inequality and rising working-class mobilization. Although both phenomena have received considerable attention in the academic literature, the perspectives from which they have been investigated are hardly compatible.

On the one hand the literature on the struggles, conditions and resistance of the post-reform working class sees reforms and the concurrent integration of China in the global economy as the founding moments of a ‘rebirth of capitalism’ in the country. Reforms have led to the commodification and proletarianization of labour (particularly of its most vulnerable segments such as migrant workers and laid-off state workers) and to the adoption of despotic, exploitative regimes of production functional to maintaining China’s newly-found status as ‘workshop of the world’.<sup>1</sup> Class relations are — alongside gender, ethnicity, place of origin and residence status — one of the keys to understanding the struggles, the subjectivities, the lived experiences and the organizational capacity of the Chinese working class.

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<sup>1</sup> See for example Alexander & Chan (2004); Blecher (2008; 2002); C. K.-C. Chan and Pun (2009); A. Chan (1994; 1998; 2000; 2001); A. Chan & Ross (2003); A. Chan & Siu (2010); A. Chan & Zhu (2003); Friedman & Lee (2010); Lee (1998a; 1998b; 1999; 2000; 2002; 2007); Leung & Pun (2009); Pun (2005a; 2005b; 2007); Pun & Chan (2008); Pun, Chan & Chan (2010); Pun & Smith (2007); Smith & Pun (2006); Solinger (1992; 1995; 1999; 2002; 2004).

On the other hand, the quantitatively-oriented literature on the determinants of inequality (whose leading figures can be identified with Victor Nee, Andrew Walder and Yanjie Bian) has adopted a neo-institutionalist framework in which reforms are seen as an institutional transition from plan to market. Markets are conceived in this literature as neutral mechanisms for the rational allocation of the resources mobilized by profit-maximizing agents — be they individuals, enterprises or bureaucratic organizations.<sup>2</sup> The approach adopted in this literature stresses the role of markets as mechanisms of *choice*, and associates markets with *opportunity*, *incentives* and *power* — as in the three theses proposed in the initial formulation of Nee's Market Transition Theory (Nee, 1989). In so doing, this literature has failed to build upon the compelling evidence provided by authors like Anita Chan, Ching Kwan Lee and Pun Ngai, whose research underlines how the market-mediated relations between capital and wage labour in post-Mao China are marked by class exploitation and domination.

In light of the evidence showing that the re-emergence of a labour market in China is linked with the instauration of capitalist class relations, the view of the market as a neutral sorting mechanism appears inadequate. As argued by Wood:

‘the distinctive and dominant characteristic of the capitalist market is not opportunity or choice but, on the contrary, compulsion. Material life and social reproduction in capitalism are universally mediated by the market, so that all individuals must in one way or another enter into market relations in order to gain access to the means of life’ (Wood, 2002: 7).

Capitalist markets are, for Wood, an *imperative* rather than an opportunity, since all social relations become regulated by the dictates of competition, accumulation, profit maximization and increasing labour productivity. Research on China suggests that this is indeed happening. It is in the name of a market imperative (competition from the ‘leaner’ private sector) that State-Owned Enterprises [SOEs] lay off their redundant workers and shed their welfare obligations (C. K. Lee, 1999). It is in the name of a market imperative (the need to respond to the requirements of global value chains)

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<sup>2</sup> See in particular Chapter 2 in this thesis for a detailed discussion of the literature.

that export-oriented firms exploit proletarianized migrant workers under the conditions of the ‘dormitory labour regime’ (Pun & Smith, 2007; Smith & Pun, 2006), bind them into a ‘disciplinary labour regime’ (A. Chan, 2000; A. Chan & Zhu, 2003; 2001) and participate in the global ‘race to the bottom’ (A. Chan & Ross, 2003). It is in the name of a market imperative (local accumulation) that the commodification of labour and the promulgation of labour legislations based on the notion of individual contracts has been accompanied by widespread labour rights violations, giving rise to a regime of ‘disorganized despotism’ (Friedman & Lee, 2010; C. K. Lee, 2002).<sup>3</sup>

If markets are not only places of opportunity but also a mechanism of compulsion, in order to fully analyze the effect of reforms on the distribution of income and other material rewards it is necessary go beyond the social relations of exchange. The focus should instead shift on the social relations of production, with the aim of understanding how the distribution of incomes and rewards is related to the reproduction of the social relations in which individuals enter *after* they obtain a job. Viewed from a neo-Marxist class perspective, the differential distribution of incomes and rewards is in fact (alongside sanctions, domination and ideology) a mechanism of social control aimed at inducing workers to perform surplus labour. By adopting a class approach and by focusing on the social relations of production, it would be possible to better integrate the analysis of the determinants of inequality with the more general investigation of the regimes of production emerged in China in the aftermath of reforms. The literature on the determinants of inequality, due to its neglect for class and its focus on market-mediated returns to individual endowments, has until now failed to do so.

This thesis addresses this gap in the literature by bringing a relational class perspective to the quantitative analysis of the determinants of inequality. Wright’s neo-Marxist class analysis (Wright 1997; 2005a) was applied to a case study of wage levels, benefits distribution and social networks mobilization among white-collar employees in the Nanjing New- and High-Technology Development Zone [NNHTDZ].<sup>4</sup> The guiding question for the study was: are the patterns of

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<sup>3</sup> I am not here implying any form of economic determinism, nor suggesting that these decisions were exclusively taken on economic grounds. Political, ideological and institutional factors certainly played an important role alongside pressures for accumulation and competition.

<sup>4</sup> ‘White-collar employees’, as used here, is only a loose occupational definition that refers to employees performing

inequality observed in the NNHTDZ consistent with the presence of capitalist class relations? More specifically, the study sought to understand whether the distribution of incomes and benefits in the NNHTDZ could be explained by Wright's class theory of income determination — according to which the income determination process is not homogeneous across class locations and material rewards are differently distributed according to the grade of autonomy and authority exercised by employees in the workplace. Wright refers to the process through which class is supposed to affect returns to individual-level attributes such as education and work experience as *class mediation* (Wright, 1979). The study therefore tried to assess the presence of class mediation by comparing the distribution of wages and nonwage benefits across white-collar employees structurally located in different class locations — middle class locations and working class locations — after controlling for individual-level attributes such as gender, education, and work experience. Furthermore, the study investigated whether the mobilization of social networks to receive and provide help during the job search process varied across class locations.

Unlike previous approaches, this study considers inequality not only as the result of attribute-based selection but also as the product of structural disparities between the class locations (the 'empty class positions') generated by the unequal distribution of rights and powers over productive resources (Wright, 2005b; 2009). In attribute-based approaches to inequality, the fact that people endowed with the right mix of economically-relevant attributes enjoy higher standards of living does not necessarily depend upon the deprivation of others. Wright's class analysis postulates instead a structural link between privileged and non-privileged class locations. The causal link between class and inequality pivots on the social relations of exploitation and domination, not on the social relations of exchange.<sup>5</sup>

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clerical, administrative, technical, professional or managerial functions.] As will be explained in Section 1.2.3, within the relational class framework adopted in this thesis (the neo-Marxist class theory of Erik Olin Wright) there is no one-to-one correspondence between occupational groupings and class locations. According to their position within capitalist relations of exploitation and domination, members of an occupational group can be located in any of a number of relationally-defined class locations. Thus, white-collar employees are not necessarily members of the middle class as defined by Wright.

<sup>5</sup> Wright (2009: 107) defines domination as 'the ability to control the activity of others' and exploitation as 'the acquisition of economic benefits from the labour of those who are dominated'.

At the same time, this study complements previous research on the social relations of production in post-Mao China and extends the focus of the analysis to a different segment of the labour force. Previous research has been predominantly concerned with processes of class consciousness, class formation, class conflict and class struggle, generally investigated through ethnographic perspectives. The post-reform working class has been the privileged topic of the literature, which often concentrated on the most vulnerable fractions of the Chinese working class such as migrant workers, workers employed in labour-intensive sectors and laid-off state workers. This study gave instead primacy to the structural aspects of class analysis; the shift in focus was necessarily accompanied by a shift in methodology. Although the study adopted a sequential mixed-methods design embedded within a case study, the role of social class as a determinant of inequality was primarily investigated through quantitative methods. The main aims of the qualitative component of the case study were to situate the analysis in its local context, to investigate the nature of labour markets in the NNHTDZ and to design appropriate operationalizations for the class variables.

Furthermore, the study focused on a relatively privileged fraction of the Chinese wage labour: highly-educated white collar employees working for companies operating closer to the white-coat-lab end of the industrial imaginary than to its sweatshop end. During the course of my visits to workplaces in the NNHTDZ I have been greeted by rows of assembly-line robots dancing to a waltz tune, have tested prototypes of appliances that I then found in Sydney's metro stations, have entered futuristic videoconferencing rooms used every night by local engineers to coordinate their activities with teams operating in other continents and have spent long hours waiting for the end of negotiations between local entrepreneurs and Western investors. The difference between the NNHTDZ and the labour-intensive factories I have had the chance to visit in rural China and rural Vietnam was indeed striking. As emerged from my interviews with human resource managers, the main problem faced by companies in the NNHTDZ was not to maintain access to a flexible supply of labour to respond to just-in-time orders but rather to reduce the turnover of highly-educated white-collar employees performing non-routine functions, employees whose replacement costs (due to lengthy and expensive training) were extremely high.



This study contributes further evidence about the relevance of capitalist class processes in post-reform China. The results show that class location has a positive and significant effect on the distribution of wages net of individual-level attributes, even within the relatively homogeneous occupational grouping investigated by this study. (see Chapter 2). Class location also mediates the effect of individual-level factors on the distribution of non-wage benefits linked to long-term career prospects and class stability (such as pension plans, unemployment insurance, housing funds and so on). Higher education and longer work experience only advantage white collar employees located in middle class locations, while white collar employees in working class locations remain largely excluded from these forms of benefits regardless of their levels of ‘human capital’ (see Chapter 3).

The study also shows that social networks perform distinct functions in job search for incumbents of different class locations. White collar employees in working class locations rely almost exclusively on market channels of recruitment; even when they are able to assist other job seekers, their help is limited to the provision of information about job vacancies. Conversely, white collar employees in middle class locations are frequently recruited through referrals or other forms of recruitment involving a pre-existing relation with the company or its representatives — in practice, through an ‘extended’ internal labour market that can reach beyond the boundaries of the company through the mediation of social networks. They are also able to provide more substantial forms of assistance to other job seekers. The factors that, according to previous research, influence the utilization of job search networks (such as career stage, education and family background) do not fundamentally alter these class patterns of network utilization but simply amplify or reduce the strength of class effects (see Chapter 4).

Taken together, these results suggest the presence of capitalist exploitation and domination even within a relatively privileged and well-educated segment of the labour force employed in one the most advanced sectors of the Chinese economy. While the regimes of production described in studies of labour-intensive sectors extensively rely on despotic practices, the patterns of inequality observed in the NNHTDZ denote an emphasis on consensus rather than on coercion.<sup>6</sup> The

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<sup>6</sup> A shift away from despotism towards consensus based on generous welfare provision and enterprise culture has also been observed among private enterprises by Chan and Unger (2009).

techniques of social control over labour adopted in the NNHTDZ include the differential allocation of material rewards, the selective provision of long-term career prospects and the legitimization of hierarchy through income and status differentials. Although less despotic, the regime of production in the NNHTDZ cannot be described as hegemonic since it lacks one of the fundamental features of hegemonic regimes: the separation of the social reproduction of labour power from the process of production (Burawoy, 1985: 261).

Even in this case in fact, the uneven implementation of welfare reforms has delegated the provision of guarantees to the employers rather than to the state itself — a feature already noted by Francis (1996) in her study of the high-tech sector in Haidian District, Beijing. Although white collar employees in middle class locations appear to be the main beneficiary of the system of rewards utilized by companies in the NNHTDZ, their privileges ultimately depend on capital rather than on universal, state-provided guarantees. Consistently with Burawoy's description of market despotism, the state appears to only regulate the external conditions of market relations (1985: 12). It would thus seem that, regardless of the degree of despotism and of sectoral characteristics, post-reform regimes of production are fundamentally characterized by their 'disorganized' (C. K. Lee, 2002) nature.

The remainder of the Introduction is structured as follows: Section 1.1 argues that previous studies of the determinants of inequality share the theoretical foundations of neo-classical and new-institutional economics. Because of its adherence to the canons of methodological individualism, the extant literature overlooks the role of social class as a determinant of inequality and as a driver of social change. Section 1.2 locates Wright's approach in the context of the renewal of Marxist analysis and introduces the main elements of Wright's neo-Marxist class theory. Section 1.3 reviews previous applications of Marxist concepts to the analysis of social classes in post-Mao China and explains how this study differs from previous research on the middle class. Section 1.4 describes the research design and the data collection process. The limitations of the study are discussed in Section 1.5, while Section 1.6 introduces the study location and describes the functioning of labour markets in the NNHTDZ. Finally, Section 1.7 outlines the structure of the thesis.

### 1.1. The abandonment of class analysis in studies of inequality

As argued by Pun and Chan (2008), the abandonment of class analysis in the study of China results from the convergence of two forces. On the one hand, within China itself the negation of the concept of ‘class struggle’ has been functional to the neoliberal ideology of post-Mao reforms;<sup>7</sup> on the other hand, in Western social science the ‘death of class’ rhetoric has found few opponents. If it is true that the abandonment of class is not limited to authors writing on inequality from mainstream sociological perspectives,<sup>8</sup> the literature on transition has more than any other stream of research neglected to explore the role of social class as a determinant of inequality and has entirely ignored its role in social change. I review this literature in detail in each of the individual chapters; in this section I only intend to underline its theoretical assumptions.

The turn away from class analysis in the literature on the Chinese transition is part of a more general tendency towards what Burawoy (2001) has called the ‘neoclassical sociology of post-socialism’. Although Burawoy coined the term in reference to authors writing on the Eastern European transition like Iván Szelényi and David Stark, his observations can be easily transferred to China. Burawoy argued that, although Szelényi and Stark started from a class critique of state socialism,<sup>9</sup> they eventually abandoned their earlier class perspectives in favour of an analysis of the ‘comparative capitalisms’ emerged from the trajectories of reforms. In so doing they developed a ‘neoclassical’ research program focused on the *superstructural* manifestations of capitalism (elite origins and property forms), while entirely forgoing the analysis of the fundamental elements of

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<sup>7</sup> On this point see also Agagnost (2008) and Guo (2008; 2009).

<sup>8</sup> It is interesting in this regard to notice the reactions to two recently published books on the nature of the post-reform economic system: Arrighi’s *Adam Smith in Beijing* (2007); and *China and Socialisms Market Reforms and Class Struggle*, by Burkett and Hart-Landsberg (2005). The authors came to opposite conclusions on the nature of the Chinese economic system and on the consequences of China’s rise for the rest of the world. For Arrighi, reforms could eventually turn China into a non-capitalist market economy whose rise could lead to a more benign international order. For Hart-Landsberg and Burkett, the internal dynamics of the socialist market economy have necessarily led to the instauration of a capitalist system based on brutal exploitation, with negative consequences for the international working class and other developing economies. Both books received considerable attention from China scholars. Although Burkett and Hart-Landsberg write from an explicitly Marxist perspective and there is no doubt to the centrality of Marx for Arrighi’s thought, both books were criticized for failing to undertake a concrete analysis of the social relations of production and of the class dynamics marking the post-reform era. This case provides a poignant example of the neglect for class analysis that characterizes the study of post-reform China. For (mostly critical) appraisals of *China and Socialism*, see for example Lui (2005), Lippit (2005) and So (2005). A similar point has been raised by Andreas in his analysis of Arrighi’s study (2008).

capitalism: its economic forms of production and the associated class relations. Although in their later works Stark and Szelényi focused on different aspects of the transition (the former on institutional trajectories, the latter on the trajectories of individuals and particularly of elites), Burawoy identified some common conceptual and methodological traits in their approaches. In particular, both approaches bear a close similarity to neoclassical economics since they emphasize ‘strategic action in the deployment of capital’ (Burawoy 2001: 1102). Unlike neoclassical economics however, the ‘neoclassical sociology of post-socialism’ extends the notion of capital to include social, cultural and economic resources — an extension that finds a close parallel in the literature on China.

In the case of China, the starting point of the transition literature can similarly be identified with the theory of the state socialist redistributive economy, initially formulated in the *Intellectuals on the Road to Class Power* (Konrád & Szelényi, 1979). *The Intellectuals* was the first attempt to analyze the social structure of actually existing socialist societies from a ‘New Class’ perspective. Noting how intellectuals were among the beneficiaries of the administrative allocation of goods and services (Szelényi, 1978), Konrád and Szelényi theorized the possibility that a class alliance between the ruling bureaucracy and intellectuals was in the making. The conclusion that intellectuals were emerging as a class could however not simply stand on the analysis of the distributional inequalities of state socialism, since ‘the fact that intellectuals earn higher incomes and have better access to some consumer items does not turn them into a class, and it certainly does not give them class power’ (King & Szelényi, 2004: 83). At the same time a class analysis of socialist societies, ideologically committed to the abolition of private property, could not rest on a property-centred notion of class. Konrád and Szelényi identified an alternative basis for the class analysis of socialist societies in the Polanyian notion of ‘mode of economic integration’ (Polanyi, 1944; 1957), which provided the main building block for their conceptualization of the ‘state socialist redistributive economy’. While in capitalist societies surplus is appropriated from direct producers on the basis of private property rights and disposed of through market mechanisms, in the state socialist redistributive economy surplus is first centrally appropriated by the state then reallocated by

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<sup>9</sup> Burawoy refers here to the (new) class analysis of the state socialist redistributive economy proposed for the first time in *The Intellectuals on the Road to Class Power* (Konrád & Szelényi, 1979), and to Stark’s class critique of state socialism in his studies of the Hungarian factory regime (see for example Stark, 1986).

planners through budgetary means (Konrád & Szelényi, 1979: Chapter 5).

Konrád and Szelényi called the members of the ruling class in the state socialist redistributive economy ‘redistributors’. The term has been universally adopted in stratification research of post-socialist societies. Its usage is however rarely consistent with the original intentions of Konrád and Szelényi, according to whom ‘redistributors’ refers to a specific location within the class relations of the state socialist redistributive economy. The term is in fact not meant to capture the distributional privileges enjoyed by cadres (their capacity to secure material advantages for themselves and their class allies), but their class location. The two classes identified by Konrád and Szelényi (redistributors and direct producers) are defined in relational, not gradational terms and the social relations between the two are clearly antagonistic and exploitative (see for example Szelényi, 1978: 77-78; Konrád & Szelényi, 1979: 222). Distributional effects are not the main focus of Konrád and Szelényi’s analysis; their principal concern is with the dynamics of institutional change. Their account of the historical evolution from socialist to post-socialist societies pivots on the ‘shifting legitimacy claims’ to the appropriation of surplus in different stages of the transition from plan to market — a research agenda pursued in particular by Szelényi in his later writings (King & Szelényi, 2004; Szelényi, 1988; Szelényi & Kostello, 2001).<sup>10</sup>

The detachment from the class-analytical roots of the theory of state socialist redistribution in the literature on the Chinese transition has been, if anything, even more extreme than in the case of Eastern Europe. Research agendas on Chinese social stratification and on the dynamics of post-reform inequality have been largely shaped by the work of Victor Nee, Andrew Walder and — more recently — by the network approach pioneered by Yanjie Bian. The analyses of inequality and social mobility presented in this literature are framed in strictly individualistic terms borrowed from status attainment and stratification research.<sup>11</sup> Even though concepts such as social and political capital are often mobilized in this stream of research, they are always constructed on the basis of optimizing individuals acting in conditions of imperfect markets and imperfect information. The literature on the determinants of inequality in China provides, in this sense, a clear example of what Ben Fine has termed the colonization of social sciences by economics — a colonization

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<sup>10</sup> Examples of studies of post-Mao China closer to the ‘new class’ approach of *The Intellectuals* are Andreas (2009) and H. Y. Lee (1991).

signalled by the utilization of the concepts of human and social capital within an explanatory framework than remains fundamentally marked by methodological individualism (Fine, 1997; 1999; Fine, 2004).

Authors in this stream of literature assert their distance from status attainment and stratification research on the basis of their wider research agenda, which is more concerned with the explanation of institutional change than with the study of inequality *per se* (Cao & Nee, 2000: 1182; Nee, 1989: 679; Walder, 1995: 310-12; Walder & Hu, 2009: 1399-1400). The detachment from the class-analytical roots of the theory of state socialist redistribution are however even more evident in the explanations of institutional change they propose. Institutional change is in fact modeled as the result of the cumulative actions of agents (individuals, household, organizations) engaged in the rational pursuit of their interest within the constraints of existing institutions. The struggles for alternative bases of legitimacy and class formation hypothesized by Szelényi are replaced by the cumulative actions of rational agents responding to endogenously- (for Nee) or exogenously-generated (for Walder) changes in the structures of incentives and opportunities that weaken the power structures of the redistributive state socialist economy (Nee, 1996; Nee & Matthews, 1996; Walder, 1992; Walder, 1994). Social classes do not at any stage enter the picture.<sup>12</sup>

## 1.2. Wright's class analysis

As a possible response to neoclassical sociology, Burawoy advocates a return to Marxism: the study of historical paths and trajectories should be suspended in favour of an *in situ* analysis of the actual social relations of production (2001: 1114-1117). This thesis responds to Burawoy's call

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<sup>11</sup> The theoretical roots of status attainment and stratification research can be traced back to neoclassical economics and human capital theory. See Horan (1978), Colclough & Horan (1983) and Knottnerus (1987).

<sup>12</sup> On this point see also U (2005), who notes how Walder fails to elucidate the class implication of his dual career path hypothesis.

by applying a relational class paradigm — Wright's class analysis, in which social classes are defined by the location of individuals in the social relations of production — to the study of inequality in post-Mao China. Before presenting the theoretical foundations of Wright's class analysis and discussing its applications in empirical research, this section locates Wright's work within the neo-Marxist elaboration of the concept of social class.

### **1.2.1. The renewal of Marxist analysis**

Notwithstanding Marx's invitation to follow the possessors of money and the possessors of labour-power 'into the hidden abodes of production', the Marxist rediscovery of the workplace and of the labour process as sites of theorization and empirical investigation only occurred in the late 1960s (Arrighi, 2007: 19-20). This rediscovery coincided with the movement that Burawoy (1996) termed the 'renewal of Marxist analysis'.

The 'renewal of Marxist analysis' was an attempt to overcome the problems confronting Marxism — particularly Marxist class analysis — as a theory of social, institutional and historical change. According to Burawoy (1989), two anomalies challenged the explanatory claims of classical Marxist theory and the predictions of historical materialism: the passivity of the working class in Western capitalist societies, which had not performed its alleged historical task as an agent of revolutionary change; and the durability of capitalism itself.

Furthermore, although class analysis had a prominent role in Marx's writing, Marx never systematically defined social class (Wright, 1985: Chapter 1). On the one hand, Marx was concerned with the elaboration of abstract structural maps of class relations; on the other, he focused on the conjunctural analysis of social classes as collective actors engaged in struggles in concrete historical settings. In the first case, Marx provided a polarized image of class relations, in which the classes generated in each mode of production (lords and serfs; slaves and slave masters; bourgeoisie and proletariat) stood in antagonistic relations to each other. When Marx moved to the historical analysis of social class, the simple polarized map of class locations dissolved in a plurality

of classes, groups, fractions and strata engaged in struggles with each other and with other political actors. The two pictures of the class structure clearly diverged, and Marx did not in his writings provide a systematic way to reconcile them.

For these reasons, one of the major tasks confronting Marxist theory has been the clarification of the relation between social classes as objective, structurally-defined positions within class relations (class-in-itself), and social classes as historically formed into organized collectivities (class-for-itself). Orthodox Marxism tried to explain away the discrepancies between the reality of capitalist societies and the predictions of Marxist theory through functionalist and teleological arguments (Burawoy, 1989). Thinkers engaged in the 'renewal of Marxism' rejected the teleological arguments of orthodox Marxism and embarked in a radical renovation of the theoretical foundations of Marxist analysis. Rather than taking the eventual convergence of class structure and class formation as an *a priori* given, and the fact that the future of capitalism lies in the transition to socialism through the revolutionary actions of the working class as an article of faith, authors involved in the renewal of Marxism attempted to clarify the theoretical relationship between class structure and class formation and subjected the teleological hypothesis of the inevitable collapse of capitalism to close critical scrutiny.<sup>13</sup>

The rediscovery of the workplace, of the labour process and of the patterns of conflict and resistance taking place at the point of production was crucial to the main schools emerged from this elaboration. Pioneered by Harry Braverman's *Labor and Monopoly Capital* (1974), the neo-Marxist theorization of the labour process was further advanced in Burawoy's ethnography of socialist and capitalist industrial production sites (1979; 1985). In Burawoy's analysis, class structure and class formation are seen as mutually constitutive (Burawoy, 1989). The workplace not only determines material interests, but also contains its own political and ideological apparatuses that he termed the 'political regime of production' (Burawoy, 1985). A second school within neo-Marxism focused on processes of class formation and on the historical analysis of collectivities involved in class struggle. This school, closely associated with the work of E. P. Thompson,

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<sup>13</sup> The resilience of capitalism and its capacity to evolve in response to crises are central topics for schools of radical political economy such as the social structures of accumulation school and the regulation school. I will not here discuss these theories and only focus on approaches more directly relevant to the type of class analysis performed in this study.



defined social class through common lived experience rather than through common material interests (see for example Thompson, 1963). A third school privileged the structural aspects of class analysis, developed more elaborate class maps of capitalist societies and gave precision to under-theorized concepts such as the middle class. Wright's class analysis, on which this study is based, belongs to this current.

### **1.2.2. The structural character of Wright's class analysis**

Although the relations between class structure and class agency are differently conceptualized by the authors of the renewal of Marxism, class is for all of them primarily articulated in the place of production — be it through the presence of political apparatuses of production, through the form and content of experiences of struggle and resistance in the workplace or through the presence of exploitation and domination within capitalist relations of production. The different strands of literature focus nonetheless on various aspects of class analysis. Wright's approach, in particular, could appear to be more concerned with the theoretical elaboration of structural class concepts than with the analysis of subjectivity, class consciousness, class formation and class mobilization.

Wright's attempt to redefine the basis for the identification of class locations within the Marxist framework is, however, not simply an exercise in classification, but part of a fundamental reconstruction of Marxist class theory.<sup>14</sup> Although structural analysis has a central role in Wright's research agenda, his approach ultimately aims at building a conceptually sound basis for the integration between, on the one hand, studies of class consciousness, class struggle and modes of production and, on the other, the quantitative analysis of inequality. As for other neo-Marxist authors, Wright's primary interest lies in the problematic relationship between class structure and class formation. He explicitly rejects the classical Marxist claim that there is a one-to-one, deterministic relationship between structurally defined class locations and the class organizations engaged in class struggle (Wright, 1985: 123-124). Class structures can potentially give rise to a variety of class formations according to a series of contingent factors that, together with the underlying structure of class relations, influence and are in turn influenced by patterns of class formation through a

complex array of modes of determination.<sup>15</sup>

For these reasons, structural analysis ‘is only one element in a broader theoretical enterprise that can be called “class analysis”’ (Wright, 1989: 271).<sup>16</sup> Nevertheless, the theoretical specification of structural class concepts remains fundamental for understanding the overall logic of class analysis. He writes:

To speak of *class* formation or *class* struggle as opposed to simply *group* formation or struggle implies that we have a definition of ‘class’ and know what it means to describe a collective actor as an instance of class formation, or a conflict as a class conflict instead of some other sort of conflict [...] In each case one must already have a definition of class structure before the other concepts can be fully specified. Elaborating a coherent concept of class structure is instead an important conceptual precondition for developing a satisfactory theory of the relationship between class structure, class formation and class struggle (Wright, 1997: 3-4).

In order to give theoretical precision to the key concepts of the structural side of class analysis (class relations, class structure and class locations), Wright starts by defining the basic building block in Marxist class analysis, the concept of *social relations of production*:

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<sup>14</sup> Burawoy for example explicitly acknowledges a potential linkage between his analysis of regimes of production and Wright’s structural analysis of class. In *The Politics of Production* (1985: 19, footnote 1) Burawoy notes that his analysis focuses on the industrial working class which he defines, following Wright, as a fraction of the working class that includes ‘all wage earners who do not exercise control over production’. He argues that ‘what distinguishes different fractions of the working class is not the character of the labour process but [...] the political regime of production’. He therefore suggests that his ideas can be extended to other fractions of the working class structure — such as the fractions that do exert some degree of control over production like the highly-skilled workers, managers and professionals investigated in this study.

<sup>15</sup> For Wright’s analysis of modes and models of determination, see for example Wright (1979: Chapter 1) and Wright (1997: Chapter 13).

<sup>16</sup> Wright (2005a: 20-21) identifies five concepts as particularly relevant to the analysis of class agency: (1) class interests, defined as the material interests of people structured by their location within class relations; (2) class consciousness, which refers to the awareness that people have of their class interests; (3) class practices, i.e. the practices that people engage into to pursue their class interests either at the individual or at the collective level; (4) class formation refers to the formation of collectivities (formal or informal organizations) whose aim is to pursue class interests; (5) finally, class struggle refers to conflicts taking place between individuals engaged in contrasting class practices or between class formations pursuing opposed class interests. On this point, see also Wright (1989: 271-273).

social relations of production are the sum total of the rights and powers people that participate in production have over the resources used in production, and over the result of their use (2005a: 9-10).

The concept of social relations of production is directly linked to the definition of *class relations*. Class relations are a specific form of social relations of production, one which is characterized by the unequal distribution of the rights and powers over productive resources:

When the rights and powers of people over productive resources are unequally distributed — when some people have greater rights/powers with respect to specific kinds of productive resources than do others — these relations can be described as class relations’ (Wright, 2005a: 10).<sup>17</sup>

*Class structure* refers instead to ‘the sum total of the class relations within a given unit of analysis’ (Wright, 2005a: 19-20). The unit of analysis for studies of class structure is typically the state, but other legitimate units could be a firm, a city or — as in the case of this study — an industrial development zone. Class structure is the key element of macro-level class analysis, in which pertinent questions are, for example, the relationship between class structure and political regime in a state, or between class structure and patterns of manager-worker relations in a firm.

Finally *class locations* ‘designate the social positions occupied by individuals within a particular kind of social relations, class relations’ (Wright, 2005a: 14). Class location is the pivotal concept for micro-level class analysis, which studies how class location influences different aspects of individual life such as earning capacity, working conditions and political attitudes.

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<sup>17</sup> Unlike Weberian class analysis, Marxist class analysis postulates the existence of qualitative variations in class relations, according to the rights and powers that constitute the social relations of production in a given society (Wright, 2005a: 10-11). For example, in feudal class relations labour power is unequally distributed: lord and serfs have joint ownership of the labour of the serf, hence the lord owns more than one unit of labour power and the serf owns less than one unit of labour power. In capitalist class relations, labour power is equally distributed since each individual owns her or his labour power; thus a capitalist and a worker only own one unit of labour power each.

### **1.2.3. The ‘problem of the middle class’ and the distinctiveness of Marxist class analysis**

As discussed above, Wright devoted his efforts to the development of a concept of class that, while consistent with the logic of Marxist class analysis, could be deployed in micro-level analyses of social class in concrete social settings (Wright, 1978; 1985; 1989; 1997). In doing so, he had to confront the empirical and a theoretical problems that the middle class poses to Marxist class analysis. The roots of the problem lay in the fact that:

[t]he Marxist concept of class structure has traditionally been constructed more systematically as a highly abstract macro-structural concept. Class structures were defined in terms of models of pure modes of production (slavery, feudalism, capitalism, communism) and used to understand the broad, macro-structural dynamics of social development. This is not to say that Marxists have failed to engage in concrete or micro-level class analysis. However, typically the class structure concept deployed in such analysis has tended to be directly imported from the more abstract macrostructural arena with relatively unsystematic amendments to make it suitable for concrete micro-analysis (Wright, 1989: 275).

In the abstract, polarized class map of classical Marxism, capitalist class relations generate two fundamental class locations: capitalists, who own the means of production and hire workers; and workers who, being separated from the means of production, need to sell their labour to capitalists under conditions of asymmetric power and are therefore exploited. The polarized class map of classical Marxism can be an appropriate tool to investigate broad, macro-structural dynamics of social change (Wright, 1989: 275); it is however inadequate for micro-level analysis, since it does not capture class-relevant distinctions within the employee population (Wright, 1997: 19). While in capitalist societies the majority of the population is separated from the means of production, not all the people who sell their labour power and work for a wage appear to belong to the working class. This is particularly true for the wide range of technical, managerial and professional occupations that are generally referred to, in popular discourse, as the middle classes.

Wright tried therefore to ‘transform the ideological category “middle class” into a scientific concept’, by generating ‘a class concept for concrete analysis which adequately maps [middle class] locations while at the same time preserving the general assumptions and framework of Marxist class analysis’ (Wright, 1985: 26). He identified three distinctive elements in the Marxist definition of class (Wright, 1979: 4-18), to which a Marxist conceptualization of the middle class should adhere:

1. **Class is understood in relational terms.** Different traditions within class analysis are characterized by a distinctive set of research questions and by a specific conceptualization of social class (Wright, 2005a; 2005b). A broad distinction has been drawn between traditions based on a *gradational* concept of class and traditions based on a *relational* concept of class (Wright, 1979: 5-8; 1985: 34-35).<sup>18</sup> In gradational approaches, social classes differ for some directly or indirectly measurable attribute, such as income or position in a status hierarchy.<sup>19</sup> Gradationally-defined classes are typically named so as to reflect their relative ordering in a metaphorical social space (for example lower class, middle class, upper middle class and upper class). In relational approaches, social classes are defined by their structured social relations to other classes. Relational views of class emphasize the presence of qualitative differences between social classes — a view that is also reflected in the use of labels such as lords and serfs or capitalist class and working class. Ossowski (1998: 31) provides the following example to clarify the distinction between relational and gradational class concepts: ‘the rulers cannot be defined without reference to their relation with those who are ruled, but the rich can be described without reference to their relation to the poor’. In this case, ‘rulers’ and ‘ruled’ are relationally-defined class locations while ‘rich’ and ‘poor’ are gradationally-defined class locations. Wright’s class analysis adopts a relational approach in

<sup>18</sup> This categorization was initially proposed by Ossowski (1998: 145-147), who distinguished between theories of class based on *ordering relations* (i.e., gradational theories) and theories based on *relations of dependence* (relational theories). Crompton (2008: Chapter 4) uses a different terminology to refer to the same categories. She contrasts ‘theoretical’ (i.e., relational) class schemes to ‘descriptive’ (i.e., gradational) class schemes. The latter are based on occupations or on subjective scales of occupational prestige and social ranking.

<sup>19</sup> Ossowski (1998: 42-45) further distinguishes between *simple* and *synthetic* gradation. In simple gradational schemes, classes are defined on the basis of a single measurable characteristic (most typically income, wealth or the level of education). In synthetic gradational approaches, classes are defined using a combinations of factors; for example occupation, income and educational level can be combined into a synthetic class indicator.

which class relations are conceived as a multidimensional ‘package of relational practices’ (Wright, 1989: 302). In Wright’s relational view, ‘class location’ is only a shorthand for ‘location within class relations’: the class location occupied by an individual specifies his or her position in structured patterns of social interaction shaped, among other things, by class relations — i.e., by the unequal distribution of rights and powers over the resources deployed in production.

2. **Classes are defined by production relations.** Within relational approaches to class, a further distinction needs to be made between traditions that define class on the basis of market relations (i.e., relations of exchange) and traditions that define class on the basis of production relations. Both Marxist and Weberian class analysis, for example, define class in relational terms. For authors that build upon the Weberian tradition of class analysis however, classes are typically defined in terms of market capacity (or market situation, as in Weber’s original definition). In Marxist class analysis, class relations are primarily articulated in the structure of production.<sup>20</sup>
3. **Within the social organization of production, class is defined by relations of exploitation.** Several traditions within class analysis give theoretical primacy to the sphere of production. One possible approach relies on the identification of classes with occupational categories. In this case, classes are defined by their position in the technical division of labour. Marxist class theory focuses instead on the analysis of exploitation, which can be defined as a ‘relation of domination within which the people in the dominant position are able to appropriate the surplus labor of people within the subordinate position’ (Wright, 1979: 15).

Summing up, in a Marxist theory of the middle class social classes should be defined as ‘common positions within the social relations of production, where production is analyzed above all as a system of exploitation’ (Wright, 1979: 17). This requirement makes some common ways of talking about the middle class problematic within a Marxist class framework. The identification of the middle class with middle-income strata, a simple gradational indicator, is not compatible

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<sup>20</sup> On the difference between Weberian and Marxist approaches, see for example Wright (2005a).

with the foundations of Marxist class theory. The same can be said of the definition of the middle class on the basis of status of prestige scores, common in stratification research and status attainment research.

The operationalization of class in terms of occupational categories is similarly inadequate, since in Marxist class theory ‘class and occupation occupy basically different theoretical spaces’ (Wright, 1980a: 178). Occupations are primarily understood as position within the *technical* relations of production, while classes are defined as positions in the *social* relations of production. Since people engaged in the same occupation can be differently located in the social relations of production, there is not necessarily a one-to-one relation between occupational categories and social classes. Wright provides the following example:

A carpenter, for example, could be located in any of a number of different class positions: worker-carpenters are wage-laborers for capital who lack any significant control over their labor process; petty bourgeois carpenters are self-employed artisans who sell carpentry services directly to consumers; manager-carpenters are wage laborers who control the labor of other carpenters within production (e.g., foremen) (Wright, 1980a: 178).

An empirical analysis of the distribution of occupations within relationally-defined class categories in the United States found that most broad occupational categories have rather heterogeneous class compositions (Wright, 1980a).<sup>21</sup> Although ‘the common association of the working class with manual occupations, and nonmanual occupations with the “middle” class [...] is not a totally unrealistic picture [...] it is important not to take this observation too far’ (Wright, 1980a: 187). In fact, ‘lower white collar occupations are much more like lower blue collar occupations in their class distributions than they are like upper white collar occupations’ (p. 178).<sup>22</sup> He concluded that ‘it is clearly inappropriate to globally identify manual labor with the working class and

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<sup>21</sup> The study was based on Wright’s operationalization of class in terms of contradictory locations, which is described in Section 1.2.4 below.

<sup>22</sup> For instance, Wright found that nearly 60 per cent of people in clerical occupations and about 39 per cent of craftpersons and technicians belonged to the working class.

nonmanual labor with the “middle class” (contradictory class locations)’ (Wright, 1980a: 188).

Finally, occupational groups are an inadequate basis for the identification of social class even when the theoretical rationale behind their utilization is the linkage between occupation and skills, not the position in the technical division of labour.<sup>23</sup> In this case, occupations are ultimately a proxy for market capacity; exploitation, the key causal process in Marxist class analysis, still remains out of the picture.

Within Wright’s neo-Marxist class framework, the identification of classes should ultimately rest upon the analysis of the location of individuals in relations of exploitation and domination. For this reason, although this study only concentrates on white collar employees, it is still possible to differentiate between white collar employees located in the working class (because they do not exercise any authority over other workers and have none or little autonomy over their own labour process) and white collar employees located in a ‘middle class’ location.

#### **1.2.4. ‘Contradictory locations’, ‘multiple exploitation’ and ‘complexity in class locations’**

While Wright’s conceptualization of the middle class upholds the distinctive features of Marxist class analysis, it sharply diverges from previous attempts at defining the middle class within a Marxist class framework. Previous Marxist approaches to the identification of the middle class shared in fact a fundamental, but often implicit, assumption: the idea that ‘every position within a class structure falls within one and only one class’ (Wright, 1985: 43).<sup>24</sup> Wright’s intuition was that some class locations can simultaneously belong to more than one class, thus having a multiple class character. Wright called these locations *contradictory locations with class relations*.

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<sup>23</sup> See Wright (Wright, 1979: 9, footnote 2).

<sup>24</sup> When Wright first engaged the problem of the middle class, four solutions to the conceptualization of the middle class had been proposed within Marxist class analysis: (1) the ‘simple polarization’ thesis, according to which the middle class is in reality a privileged stratum of the working class; (2) the ‘new petty bourgeoisie’ thesis, in which the middle class was classified as part of the petty bourgeoisie (or of a new petty bourgeoisie) due to its ownership of assets such as skill or human capital or — as in the case of Poulantzas’ class theory — on the basis of its performing unproductive labour; (3) various versions of ‘new class’ theories, which located the middle class in a class of its own; (4) the ‘middle strata’ theory, in which the class character of the middle class was either denied, or remained unspecified. For an extended discussion of



In the first full formulation of the theory of contradictory locations (Wright, 1976; 1979), Wright based the operationalization of class locations on the intersection of three dimensions: control over money capital, control over physical capital and control over labour; each form of control could be exercised in different degrees. Workers and capitalists (the fundamental locations of Marxist class theory) were characterized by their perfect polarization along the three dimensions: workers were excluded from all forms of control, while capitalists simultaneously exercised all of them. Managers exerted varying degrees of control on only some of the dimensions, partaking in this way of the class character of both capitalists and workers. People in professional and technical occupations enjoyed some degree of control over their own labour process while exercising no control at all on money and physical capital, thus being simultaneously located in the working class and in the petty-bourgeoisie; Wright called this class location ‘semi-autonomous employees’. Finally small employers, being at the same time self-employed and employers of wage-labour, were simultaneously located in the capitalist class and in the petty-bourgeoisie. In this first version of Wright’s map of capitalist class relations, managers, semi-autonomous employees and small employers occupied contradictory locations within class relations.<sup>25</sup>

In the book *Classes* (1985) Wright adopted a different strategy to define the middle class, which he refers to as the *multiple exploitation* approach (Wright, 1989: 305-313). Wright built upon Roemer’s game-theoretic analysis of exploitation to identify different forms of exploitation based on the unequal distribution of specific assets. In this view, different modes of production generate distinct mechanisms of exploitation. The forms of exploitation that Wright identified are the following; (1) feudal exploitation, based on the unequal distribution of labour power; (2) previous Marxist approaches to the problem of the middle class, see (1980b) and Wright (1985: 37-42).

<sup>25</sup> At a later stage, Wright reformulated the concept of contradictory class locations in the light of his analysis of the interpenetration of modes of production — i.e. the coexistence, within a given social formation, of distinct modes and forms of production (Wright, 1994: Chapter 6). He distinguished between two types of contradictory locations: contradictory locations *within* modes of production and contradictory locations *between* modes of production. In this new formulation, the class location of managers was defined as a contradictory location *within* the capitalist mode of production, since this class location combines elements of the two fundamental locations of capitalist class relations (capitalists and workers). Semi-autonomous employees occupied instead a contradictory location *between* modes of production, because their class location combines the appropriation dimension of capitalist class relations (semi-autonomous employees are, like workers, subject to capitalist exploitation) with the domination dimension of simple commodity production (like the petty bourgeoisie, they retain control over their own labour process). Small employers were similarly defined as a contradictory location between modes of production, since they capitalistically exploit their employees, but are at the same time directly involved in production (like members of the petty-bourgeoisie). On this formulation of the concept of contradictory class relations, see Wright (1985: 49-51) and (Wright, 1989: 303).

capitalist exploitation, based on the unequal distribution of the means of production; (3) statist exploitation, based on the unequal distribution of organizational assets; (4) socialist exploitation, based on the unequal distribution of credential/skill assets (Wright, 1985: Chapter 3). While at the abstract level modes of production are associated with only one form of exploitation, in reality different forms of exploitation often coexist in the same social formation. Wright defined middle class locations as those locations within the class structure that are exploited through one form of exploitation, while being exploiters according to a different mechanism of exploitation. Within capitalist class relations, the two typical examples are managers and experts: managers are capitalistically exploited, but exploit workers through their control over organizational assets; experts are capitalistically exploited, but are at the same time skill exploiters (Wright, 1985: 86-92).

In the two approaches described above, Wright tried to derive a differentiated map of the capitalist class structure from a single analytical principle. In the first case, the principle was that class locations can simultaneously belong to more than one class; in the second case, the principle was that class locations can combine different mechanism of exploitation (Wright, 1989: 323). Since Wright himself and other class analysts found several conceptual difficulties in both approaches (see for example the contributions in Wright et al., 1989), Wright eventually abandoned the idea of founding his class analysis on a unitary principle. He designed the contours of a new strategy based on the identification of the complexities that affect the location of individuals within class relations, and on the systematic incorporation of these complexities into the analysis of the class structure (Wright, 1989: Chapter 8; Wright, 2005a). Wright identified five sources of complexity that affect the location of individuals in class relations. Two sources of complexity are directly related to the concepts of contradictory locations and multiple exploitation introduced above, and deserve for this reason a more detailed discussion:

1. *The unbundling of rights and powers*: class relations are not unidimensional; they are in reality ‘complex bundles of decomposable rights and powers [that] can potentially be partially unbundled and reorganized in complex ways’ (Wright, 2005a: 16). The multidimensionality of class relations generates contradictory class locations. Managers, for example, exercise some of the powers of capital (decisions over the firing and hiring of workers, capacity to

operate changes in the organization of the labour process and so on). At the same time, like workers, they can be fired and cannot appropriate the productive assets under their control for personal consumption. For this reason, they occupy at the same time a capitalist and a working class location within class relations. The possession of highly valuable skills and expertise can also generate a contradictory class location because skills affect the distribution of rights and powers over the performance of the job. In the case of highly-skilled employees, employers have to forego some degree of control over the labour process and are often required to offer long-term employment guarantees — which equates to highly-skilled employees gaining some degree of ownership in their jobs. In the class complexity framework, the concept of contradictory locations is not anymore a single unifying principle guiding the reformulation of Marxist class analysis, but one among the several forms of complexities that structural class analysis has to take into account.

2. *Strata and class locations*: there are clear quantitative and qualitative variations in the degree of power exercised or in the amount of resources controlled by people located in structurally similar class locations. For example, managers can have more or less actual control over investment and employment decisions while capitalists can employ few workers or thousands of employees. Wright refers to these variations as ‘strata within class locations’. For wage earners, variations in the degree of autonomy and authority can translate into higher earnings through the command of loyalty or skill rents — both instances of the more general concept of class mediation over the income determination process. Variations in the degree of power or resources controlled by employees generate *privileged appropriation locations* within capitalist class relations, such as those occupied by managers and professionals. The concept of privileged appropriation locations can be seen as a weaker reformulation of the idea of multiple exploitation: managers and professionals are not anymore conceived as organizational or skill exploiters but simply as employees that enjoy a lower degree of exploitation than working class employees (Wright, 1997: 21, footnotes 25 and 26).

Other sources of complexity concern the temporal aspect of class locations (i.e., the fact that some people can be placed on career trajectories that, over time, can be reasonably expected to

cross class boundaries); the allocation of individuals to class locations (some people can, for example, hold more than one job or they can be wage labourers and at the same time hold investments in stocks); and the effect of mediated class relations (people are also affected by the class location of their family members).<sup>26</sup>

#### **1.2.5. The twelve-locations map of capitalist class relations**

The conceptualization of locations-within-class-relations in terms of sources of complexity, contradictory locations within class relations and privileged appropriation locations within relations of exploitation led Wright's to develop a twelve-locations map of capitalist class relations (Wright, 1997). The twelve-locations map has been extensively used in empirical, quantitatively-oriented research. An example of its application is the Comparative Project on Class Structure and Class Consciousness, an international research program that collected data from twelve different countries (see for example Western & Wright, 1994; Wright, 1997). This 'class map' provides the starting point for the construction of the aggregated class variables used in the empirical analyses performed in this thesis.<sup>27</sup>

In the twelve-locations map, Wright uses three dimensions to identify distinct class locations within capitalist class relations: the ownership of means of production; the degree of authority; and the possession of skills/expertise. The matrix of locations within class relations is defined by the intersection of these three dimensions (Figure 1.1). The rationale for including these dimensions is linked to their capacity to capture the unbundling of the rights and powers that constitute class relations and to their capacity to identify strata within class locations (see Section 1.2.4). More specifically, Wright explains the decision to utilize these dimensions as follows (Wright, 1997: 17-23):

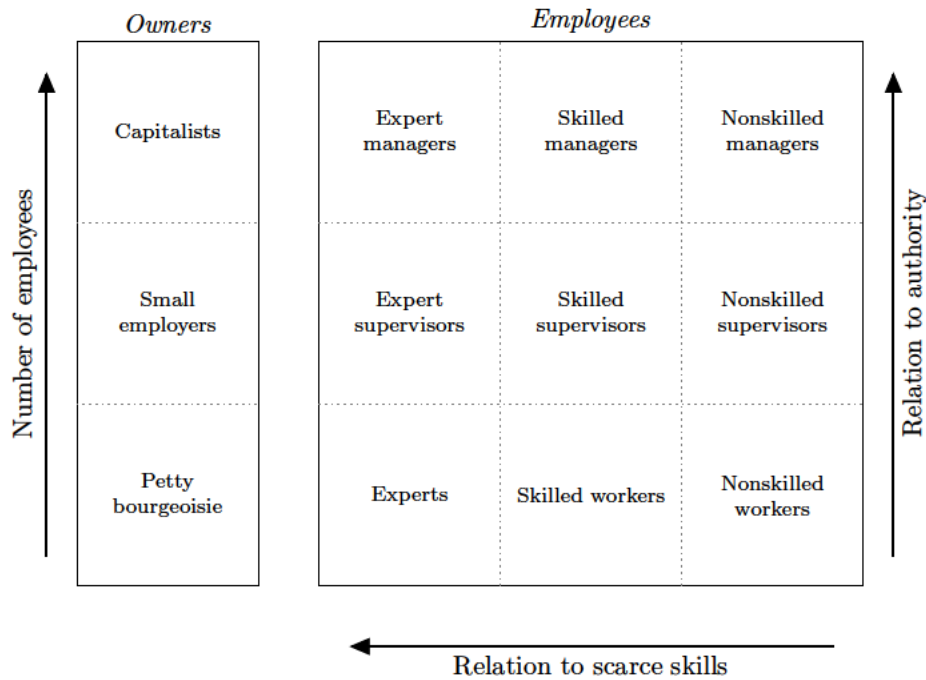
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<sup>26</sup> See Wright (1989; 2005a: 10-12) for an extended discussion of sources of complexity.

<sup>27</sup> See Section 1.2.6 for a discussion of the construction of aggregated class variables in Wright's framework.

FIGURE 1.1

Wright's twelve-locations map of capitalist class relations



SOURCE: Wright (1997: 25)

**Ownership:** ownership of the means of production is included as a dimension of class relations because on the direct relationship between property relations and exploitation.<sup>28</sup> In the twelve-locations map, Wright distinguishes three propertied locations on the basis of the number of employees: the *petty-bourgeoisie* includes self-employed people with no employees; *small employers* have few employees; *capitalists* employ a large number of people.

**Authority:** authority is considered a relevant dimension for the identification of class locations for two reasons. First, authority is linked to the domination dimension of capitalist class relations.<sup>29</sup> In

<sup>28</sup> Exploitation describes the process through which the unequal distribution of rights and powers over productive resources generates inequalities in income. Wright defines exploitation through three conditions linking the material interests of actors within economic relations; see Wright (1997: 9-13).

order to extract surplus from workers, the capitalist production system requires an apparatus of domination based on sanctions, incentives, hierarchy and control over the labour of others. When managers and supervisors engage in practices of domination within production, they are exercising delegated capitalist powers. They are however also capitalistically exploited, since they are excluded from the ownership of means of production. This duality places, as discussed above, managers and supervisors in ‘contradictory locations within class relations’: they are simultaneously in the working class and in the capitalist class. The second reason for considering authority as an important dimension in the definition of class locations concerns the relation between earning and the appropriation of surplus. Since managers and supervisors exercise delegated capitalist powers, their employers need to ensure that they will utilize these powers in an effective and responsible way that promotes the interests of the organization. Given the high degree of discretion and initiative characterising managerial positions, monitoring is costly and repressive forms of control can hinder creativity. Managers and supervisors receive therefore a ‘loyalty rent’ in the form of higher earnings and access to clear career paths within the internal labour market. In this way managers and supervisors, while contributing to the production of the surplus appropriated by capitalists through the exploitation mechanism, take part to some degree in its redistribution. This places them in a ‘privileged appropriation location within exploitative relations’ and distinguishes them from workers. Along the authority dimension, Wright identifies two different strata according to the forms and degree of control exercised by employees. *Managers* are involved in organizational decision-making; *supervisors* have power over subordinates but have no decision-making power of their own.

**Skills and expertise:** the rationale for considering this dimension in the analysis of capitalist class relations is again linked to the concept of privileged appropriation locations within exploitation relations. Employees with skills and expertise receive higher earnings (take part in the redistribution of surplus) for two reasons. First, given that experts and skilled workers retain a high degree of discretion in the performance of their jobs, employers must (as in the case of managers) devise mechanisms to enhance their loyalty. Participation in the redistribution of surplus through higher

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<sup>29</sup> Domination is defined by Wright (2005a: 25) as ‘the social relations within which one person’s activities are directed and controlled by another’. Exploitation and domination are closely connected; taken together, they define the core features of the structured pattern of social interactions within capitalist class relations.

earnings is one of the forms through which the loyalty of experts is elicited. Employees with skills/expertise can also gain some degree of ownership in their jobs (through their being placed in predictable career trajectories and through their relatively secure employment contracts) while maintaining a considerable level of control over their labour process. For these reasons employees with high levels skills and expertise can be located, as discussed above, in contradictory locations within class relations. Second, skills and expertise are generally scarce in the labour market because several mechanisms restrict their supply.<sup>30</sup> The (partially artificial) scarcity of skills and expertise generates a ‘skill rent’ component in the wage of experts and skilled workers. Along the skills/expertise dimension, Wright differentiates between *experts*, who are engaged in occupations that generally require the possession of advanced academic degrees; and *skilled workers*, who are employed in occupations that require a lower level of specialized training.<sup>31</sup>

#### 1.2.6. On the number of class locations in empirical analyses

The different combinations of authority and skills/expertise identify nine distinct locations within the employee population, ranging from *nonskilled workers* (who possess no skills and exercise no authority) to *expert managers* (who exercise actual managerial authority and possess a high degree of expertise). It is however important to note that, since these locations are not ‘classes’, the application of Wright’s class analysis in empirical research does not necessarily require the use of this highly-disaggregated map of locations-within-class-relations. On this point, it is worth quoting Wright at some length:

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<sup>30</sup> The literature on the sociology of professions has since long pointed out the existence of mechanisms artificially restricting the supply of skilled professionals, such as lengthy training, credentialism and certification by professional organizations, informal restrictions based on social and cultural capital or on ascriptive characteristics such as gender and ethnicity (see Freidson, 1994; 2001; and Larson, 1977; 1980).

<sup>31</sup> This study adopted a different operationalization of the concept of skills/expertise. The identification of locations along the skill/expertise axis was based not on the skill content of occupations but on the skill requirements of individual companies and departments. This notwithstanding, the constructs used in the study aim at capturing the same underlying dimension of Wright’s operationalization (skills/expertise, as tied to autonomy in the labour process). The reasons for adopting a different strategy are explained in in Appendix A.

People often ask the question “how many classes are there?”. My own work on class structure, for example, has been described as offering a “12-class model” since in some of my research I have constructed a 12-category class variable in order to study such things as class consciousness or class mobility. Within the framework I am proposing here, this kind of question is, I think, misconstrued. A class “location” is not “a class”; it is a location-within-relations. The number of such locations within an analysis of class structure, then, depends upon how fine-grained an account is needed for the purposes at hand. For some research questions, a relatively fine-grained differentiation of locations within class relations is desirable, since the precise ways in which persons are connected to right-and-powers-over-resources may be of explanatory importance. In my research on the relationship between class location and class consciousness, for example, I felt that a fairly refined set of categories would be relevant. For other problems, a more coarse-grained description of locations-within-relations may provide more insight. In my work on the problem of class compromise I felt a much simpler two-location class model consisting only of workers and capitalists was appropriate (Wright, 2005a: 12-13).

Furthermore, in defining the middle class conceptual issues combine with the unavoidable imperfections of empirical operationalizations (Wright, 1997: 74-75). Intermediary positions along the authority and skill/expertise dimensions combine in fact two different cases: (a) individuals whose class location is *marginal* with regards to the theoretical logic of the dimension; (b) individuals for whom the measures of their objective situation are *ambiguous*. There is therefore an inherent element of arbitrariness in deciding where to draw the boundaries between the working class and the middle class.

In his own empirical work, Wright often combined the class locations of the twelve-location matrix into aggregate class categories according to the needs of the analysis. For example, in the book *Class Counts* (Wright, 1997), Wright utilized a number of different aggregation schemes. For the study of class boundary permeability (Chapters 5, 7 and 8), he reduced the twelve-location matrix to eight aggregate locations (of which six were employee class locations). In the analysis



of intergenerational class mobility (Chapter 6), the employee class locations were further reduced to five. For the analysis of double-earner families (Chapter 10), ‘the categories of “contradictory class locations” among wage-earners [were] combined into a single and rather homogeneous “middle class” (Wright, 1997: 277-278). Employee class locations were in this way collapsed into two aggregate class categories: middle class employees and working class employees. Finally, in Chapter 15 (which deals with class consciousness) Wright utilized a two-class model based on a different set of specifications. In this case he defined the middle class as ‘everyone who is a manager, an expert or a skilled supervisor’ (page 489). All other employees (nonskilled workers, non-skilled supervisor and nonsupervisory skilled workers) were included in the working class.

Consistently with Wright’s indications, in this thesis the twelve-locations model only provided the starting point for the allocation of employees to locations-within-class-relations. For the empirical analyses performed in the individuals chapters, the original locations-within-class-relations were aggregated into simpler class categories according to the aims of each analysis. More specifically, two different aggregation schemes were used, which I refer to as Scheme A and Scheme B. Since the study only included wage labourers, both schemes were constructed by aggregating only the nine employee class location on the right-hand side of Figure 1.1.

*Scheme A* (Figure 1.2) is a two-class scheme identical to that utilized by Wright in Chapter 15 of *Class Counts*. Scheme A was used to define the class variables included in the models estimated in Chapters 2 and 3. *Scheme B* (Figure 1.3), a three-class scheme, was instead applied to the analysis of job search networks presented in Chapter 4. Given the exploratory nature of this analysis, Scheme B was designed so as to obtain a relatively pure definition of the middle class and of the working class. The middle class category only included the class locations unambiguously separated from the working class on both the authority and the skill dimensions. Therefore, the middle class as defined in Scheme B only includes managers, expert supervisors and nonsupervisory experts. The working class was restricted to nonskilled employees, while the remaining class locations — being ambiguously separated from the working class on one or both dimensions — were aggregated in an *ambiguous locations* category. The ambiguous locations category in Scheme B includes skilled workers, skilled supervisors and nonskilled supervisors.

FIGURE 1.2

Aggregate class categories used in the thesis: Scheme A

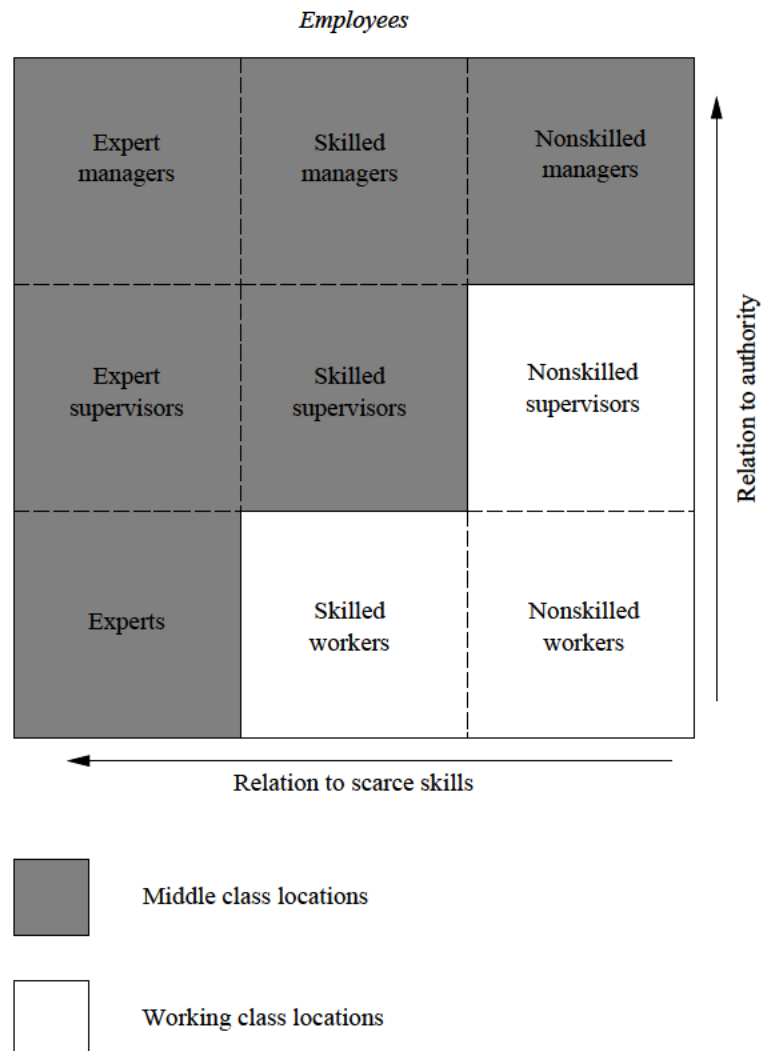
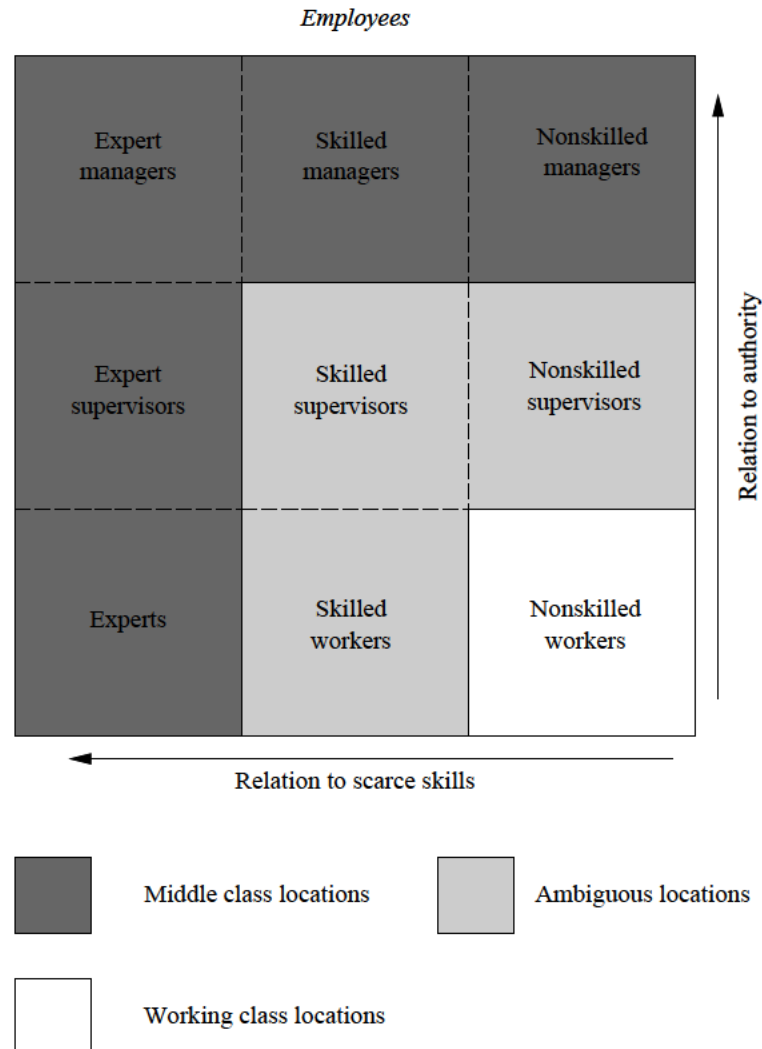


FIGURE 1.3

Aggregate class categories used in the thesis: Scheme B



### 1.3. Neo-Marxist elements in the study of post-reform China

Although the relevance of Marxist social theory in China studies has sharply declined in the aftermath of reforms (Morgan, 2004),<sup>32</sup> elements of neo-Marxist class analysis have been fruitfully integrated in research on the post-reform working class. Thompson's view of social classes as rooted in collective experience has often been referred to by authors writing on working class mobilization in China (C. K.-C. Chan & Pun, 2009; F. Chen, 2006; C. K. Lee, 1998a). Thompson's interpretation of working class struggles as a response to the breaking of the precepts of the moral economy has been applied to China by Unger and Chan (2004), and his analysis of the role of labour elites in working class mobilizations is quoted by Chan and Pun (2009). Burawoy's conceptualization of factory regimes and his analysis of working class activism under socialism provided one of the starting points for Ching Kwan Lee's theorization of 'disorganized despotism' (C. K. Lee, 1999; 2002) and for her analysis of 'insurgent post-socialist labour' (C. K. Lee, 2002; 2007).

The work of Wright, the most structurally-oriented among the three currents of the renewal of Marxism, has instead found very few applications in China. To the best of my knowledge, Wright's class analysis has been applied to post-Mao China in only two cases. The first is an article co-authored by Shaogang Wang, Deborah Davis and Yanjie Bian (S. Wang et al., 2006); the second is a PhD thesis by Thung-Hong Lin (Lin, 2008). In the case of Wang et al. (S. Wang et al., 2006), Wright's class analysis provides at best a general conceptual framework. Notwithstanding a reference to the three dimensions that underlie Wright's classification (authority, skills and ownership; see p. 322 and p. 326), the class locations defined in this study are in reality gradational occupational categories and retain only a loose connection to the relational character of Wright's

<sup>32</sup> According to Morgan (2004), the decline of Marxism is not due to a lack of explanatory power of Marxist theory, but has to be understood in terms of sociology of knowledge. Morgan lists three main reasons for the marginalization of Marxism in China studies. First, Marxist theory has lost its central place in the political debate within the PRC, both within the Party and in society at large. Second, the field has followed the trend towards micro-level approaches originating in mainstream economics and sociology, including an increasing reliance on formal modelling and statistical analysis. Finally the emergence of post-positivist approaches, particularly of post-modernist and post-structuralist theory, has been received as a valid theoretical alternative to Marxist social science by critical scholars. In regard to Morgan's first point, it must be noted that other authors have pointed out the continued relevance of Marxist thought in political and intellectual circles after the death of Mao. Gabriel (2006) has argued that a specific form of classical Marxism, which he termed modernist Marxism, informs Chinese economic policy in the post-reform era. Meisner (1985) described a revival of Marxist thought in China after the demise of the Maoist orthodoxy.

class analysis. In the case of Lin (2008) the study is based on pre-existing datasets rather than on original data; Lin's operationalization of class-relevant variables consequently differs from the one used in this thesis. Lin adopts the formulation of Wright's class theory proposed in *Classes*, in which social classes are defined in terms of multiple forms of exploitation. He equates the urban *hukou* to an asset that generates feudal exploitation; the *danwei* to a tool of organizational exploitation; and the cadre system to a mechanism of skill exploitation. Lin therefore identifies all employees of a state-owned unit as organizational exploiters independently from their rank and functions, all cadres as skill exploiters and all urban residents as feudal exploiters. This study relies instead on a specifically-designed questionnaire, and assigns individual employees rather than occupational groups or labour force segments to class locations on the basis of measures of authority and expertise developed on the field.

Perhaps more surprisingly, the growing stream of literature on the post-reform middle class (managers, entrepreneurs, state cadres) has to date failed to engage with Wright's class analysis. This literature is mainly concerned with the relations between the evolution of the post-reform class structure and political change. A recurrent theme in the literature on entrepreneurial and managerial middle classes is the criticism of class-based theories of democratization — be they the classical modernization theory of Lipset (1959; 1960), the historical-structuralist theory associated with Barrington Moore (1966); or the class power - class coalitions theory of Rueschemeyer and associates (Huber et al., 1997; Rueschemeyer et al., 1992). These theories postulate a link between capitalism-led economic growth and democracy, mediated by the deep transformation of the class structure generated by economic development.<sup>33</sup>

The fact that since 1979 the PRC has been engaged in market-oriented reforms while undergoing a period of sustained economic growth has led some authors to seek for parallels with class-based and modernization theories of democratization. Private entrepreneurs have been identified

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<sup>33</sup> The causal processes and the key agents of transformation are different for the three schools. For Moore, it was in particular the emergence of a bourgeoisie disenfranchised from the state that brought about political change in Western Europe. Lipset postulated a direct link between the level of affluence and democratization. He writes: 'democracy is related to the state of economic development. The more well-to-do a nation, the greater the chances that it will sustain democracy' Lipset, 1960: 31. Growing affluence moderates radical working class demands and increases the size of the pro-democracy middle class. For Rueschemeyer, Stephens and Stephens capitalist development alters the balance of power between social classes. The class balance of power, together with the structure of state-society relations and the international balance of power, may contribute to creating the conditions for democracy.

as potential harbingers of democracy and signs of a growing independent civil society have been detected in post-Mao China (Glassman, 1991; Howell, 1994; White, 1993; White et al., 1996). The class structure of post-Mao China appears however to most observers as fragmented along complex and intersecting dimensions that the ‘big classes’ of modernization and structural theories of democratization (the middle class, the bourgeoisie) are not able to capture.<sup>34</sup> Because of their glossing over the cleavages that characterize the post-reform class structure, class-based theories of democratization are seen an inadequate conceptual tool for explaining the dynamics of political change (or stability) in China.

Criticism has in particular been levelled at the notion of a middle class. Goodman has on several occasions pointed out the limited usefulness of the concept for the study of post-Mao China. He writes: ‘the term is frequently used for such a wide variety of social categories that its analytical capacity in terms of social and political behaviour is [...] virtually non-existent [...] [T]he emphasis must be on the plural “middle classes”, for any suggestion that there is a single middle class is unsustainable’ (Goodman, 1998: 40). For Goodman, occupational definitions of the middle class are too broad to make any sense, and gradational definitions based on measurable indicators such as income, home ownership or consumption fare no better. Gradational groupings lump together social categories that, although similar in terms of incomes or wealth, have different identities, attitudes and aspirations. Furthermore, there is an inevitable degree of arbitrariness in setting the boundaries of the middle class in this way.<sup>35</sup>

Similar arguments have been raised by other scholars. Wang (X. Wang, 2008) sees the middle class as an inherently vague category, and he is not able to find signs of collective action or shared identity among the members of this highly differentiated social group in the PRC. Tsai (2005) talks of the ‘ontologically ambiguous’ character of the term ‘middle class’; the concept of the middle class is ‘too broad and contextually contingent in terms of whom it includes to provide

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<sup>34</sup> See for example the critical references to class-based theories of democratization in A. Chen (2002: 401-2; 2003: 141-3), Hong (2004: 35), Dickson (2007: 829), Goodman (1998: 40-3; 2008: 23-5), Robison and Goodman (1996: 6-7), Tsai (2005: 1130-1) and Yang (2006: 155-6).

<sup>35</sup> See for example the review and critique of several occupational and gradational schemes in Goodman and Zang (2008: 6-10).

a meaningful sense of whether citizens clustered around a median income level [...] are likely to have democratic proclivities' (Tsai, 2005:1131-2). Definitional problems also plague alternative constructs, like for example the 'new rich'. While a less politically-loaded term than the middle class, the new rich 'is not a precise analytical tool [...] Since the new rich is neither a comprehensive category, not one that springs from a common historical experience, its impact may differ from one country to another and be the consequence of different sets of conflicts and interests, not least within the new rich itself' (Robison & Goodman, 1996: 5-6).

Although mainly concerned with the dynamics of political change, several authors have proposed classificatory schemes of the post-reform class structure.<sup>36</sup> The strategy adopted to capture the complexity of the post-reform class structure has entailed the development of *ad hoc* classificatory schemes through the multiplication of the dimensions used to identify social groups and their fractions. Notwithstanding their eclecticism, these approaches rely on classificatory dimensions aimed at capturing the relations between the emerging social classes and the party-state — relations that can be conceptualized in terms of closure and opportunity hoarding. Notably absent is an attention to the location of individuals in relations of exploitation and domination. If private property and managerial control (or exclusion from them) consistently appear as defining features of the social groups emerged from reforms, the dimensions that according to Wright and Goldthorpe allow better specification of the location of wage labourers in the social structure (selling of labour, employment contracts, possession of skills and autonomy) are given a very marginal role. A comprehensive analysis of the dimensions underlying previous classifications of the post-reform class structure is provided in Appendix B.

While it is true that the post-reform middle class (however defined) lacks a shared identity and a capacity (or willingness) for collective action, this does not necessarily mean that it is not possible to identify structural locations characterized by similar employment conditions, shared material interests and a common position in the social relations of production. This thesis adopts a theoretically-based approach that aims at underlying such commonalities through a relational definition of social class. While no claim is made that the class locations identified in the study

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<sup>36</sup> See for example Chen (A. Chen, 2002), Goodman (1996; 2000; 2001), He (2003) and So (2003).

correspond to meaningfully formed collectivities or constitute the basis of shared identities, they offer a sounder basis for quantitative analysis than the eclectic, *ad hoc* classifications proposed by the previous literature.

#### **1.4. Research design and data collection**

Most analyses of income determination in China, as elsewhere, are based on nationally-representative samples. The limited resources available for the study ruled out the possibility of undertaking a large-scale survey. Since the extant datasets do not incorporate the kind of information required to correctly identify the position of employees on the authority and skills/expertise dimensions, I decided to perform a small survey in a bounded location and to focus on a specific segment of the class structure (white collar employees).

Given that Wright's class model had never been used for empirical research in China, prior to conducting the survey it was important to assess whether the operationalizations of class-relevant dimensions (authority and skill/expertise) adopted by Wright in his studies of Western capitalist democracies were adequate in the case of post-Mao China. For example, the degree of skills associated with different occupations in China could not necessarily be the same as in the West. Fieldwork proved that this was indeed the case (see Appendix A for an extended discussion).

For this reason, I opted for a mixed-methods sequential exploratory design (an Instrument Development Model) articulated in two sequential phases (Creswell & Plano Clark, 2007). In the first phase of the study, qualitative data were collected from several sources in order to design adequate operationalizations of the class-relevant dimensions and to generate lists of items to be included in the quantitative survey instrument (occupational titles, department names, channels of recruitment, forms of benefits and so on). The operationalizations adopted for locating individuals on the matrix of class locations are described in detail in Appendix A. Furthermore, the qualitative



data collected in the first phase of the study were used to understand the specificities of the study location and to investigate the functioning of the local skilled labour market. The introduction to the study location presented in Section 1.6 is largely based on data collected during the first phase of the study.

In the second phase of the study, the survey questionnaire was administered to a clustered random sample of white collar employees working for companies located in the Nanjing New- and High-Technology Development Zone. Although the thesis emphasizes the quantitative aspects of the research, data collected in the first (qualitative) phase played an important role in the overall logic of the study as well as in the interpretation of the results.

#### **1.4.1. Selection of the study location**

The choice of the city in which to perform the study (Nanjing, the capital of Jiangsu province) was a matter of convenience. I was at the time of the fieldwork a visiting student at Nanjing University. This offered me the opportunity to establish good linkages with the local business community and with some government agencies. Thus, I was in a better position to obtain access to the field. Since the available resources only allowed for a small-scale survey, the selection of a specific study location in Nanjing aimed at reducing variations in other structural elements of stratification identified in the previous literature (sector, location, institutional context and barriers to labour mobility). The Nanjing New- and High-Technology Development Zone [NNHTDZ] was selected after a preliminary round of interviews and visits to industrial development zones for the following reasons:

1. The NNHTDZ is a national-level, bounded development zone (14.5 km<sup>2</sup>) with a well-defined institutional environment. The national character of the NNHTDZ means that, unlike other development zones in Nanjing municipality which have had greater leeway in implementing aggressive investment-attraction strategies, national-level regulations have been more closely followed. Its institutional environment has therefore been less sensitive to

local-level policy variations.

2. Due to strict regulations concerning the kind of industries that a national-level new- and high-technology development zone can host, the industrial mix in the NNHTDZ is very homogeneous since it only comprises research- and technology-intensive enterprises.
3. Because of its sectoral specificities, demand for skilled labour in the NNHTDZ is high — particularly for highly-educated employees with relevant experience in the corporate sector. The local labour market is very competitive, with high turnover rates and with a prevalence of impersonal channels of recruitment (see Section 1.6). Competition for skilled labour is strong not only within Nanjing but throughout the Yangtze River Delta region since the area (which includes Shanghai and the most advanced areas of Zhejiang Province) hosts several high-technology industrial parks. The competitive nature of regional labour markets was further confirmed by the failure of all attempts made by the NNHTDZ administration to retain skilled labour within the zone. Furthermore, in the NNHTDZ, as in other high-technology zones throughout China (Fan et al., 2009), restrictions on labour mobility on the basis of residence permits (*hukou*) have in practice been eased. This eliminated a further source of labour market segmentation identified by previous studies.<sup>37</sup>
4. Finally, new- and high-technology development zones are at the forefront of the Chinese capitalist system and are seen by the central leadership as a desirable development model. High-tech industry is at the moment the main recipient of state fiscal incentives, and new- and high-technology development zones are in a privileged position to attract further investment.

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<sup>37</sup> Statist influences on the functioning of the labour market within the NNHTDZ seem clearly subordinated to systemic capitalist constraints. In Wright's terminology it is possible to affirm that, as far as labour markets are concerned, capitalism is the dominant mode of production within the NNHTDZ.

#### 1.4.2. Data

The study is based on original data collected by the author in Nanjing between 2008 and 2009. In the first phase of the research, qualitative data were collected from different sources:

1. a preliminary round of face-to-face interviews with key informants including twenty-four company representatives (predominantly human resource managers, but also senior and middle managers in other departments); three representatives of public and private training providers; three representatives of government agencies.
2. Direct observation in two different settings: by taking part for six months to the activities of various Working Group of the European Union Chamber of Commerce in China (EUCCC), Nanjing Chapter; and by working for three months as a freelance consultant for the NNHTDZ Development Corporation, the executive arm of the NNHTDZ administration.<sup>38</sup>
3. Face-to-face, semi-structured interviews with senior and middle managers of ten companies located within the NNHTDZ. The ten companies were randomly selected from the list of all companies registered in the NNHTDZ provided by the NNHTDZ administration. The ten companies also provided the primary sampling unit for the employees' survey.

The list of face-to-face interviews and basic data about the sampled companies are provided in Appendix A.

In the second phase of the study, a clustered random sample of white-collar employees was selected from the ten companies. A total of 125 questionnaires was distributed; 97 completed questionnaires were returned. The questionnaire collected data on the employees' authority and skills/expertise; on wage and nonwage forms remuneration; on their past jobs; on their channels of

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<sup>38</sup> The vast majority of managers who participated in the activities of the EUCCC Working Groups were Chinese. My position as a consultant for the NNHTDZ Development Corporation involved close interaction with the NNHTDZ administration, potential investors and managers of companies located within the zone. I regularly attended meeting and negotiations and often shared my lunch breaks with NNHTDZ employees. Since I did not have an office in the NNHTDZ Development Corporation and was often visiting companies within the zone, I could not observe the routine functioning of the zone administration as closely as I hoped.

access to their current occupation; on their early career steps; on the social networks they mobilized to give or receive help and information during the job search process; on their attitudes towards work and career; on their membership in civic and political associations; on the jobs and educational qualifications of their spouses and parents.

## **1.5. Limitations of the study**

This study suffers from several limitations; some are due to the theoretical approach, some to the narrow scope of the investigation and other pertain to the data collection process. This section discusses each source of limitations in turn; I return on these points in the Conclusions.

### **1.5.1. Theoretical limitations**

Wright's class analysis has been criticized for its inability to provide a coherent account of class agency and for proposing a fundamental separation between structure and action (see for example Crompton, 2008: Chapter 4). In the Chinese context, these critiques have found a clear articulation in the work of Alvin So, who discussed Wright's class analysis at length in two theoretical papers (So, 1991; So, 1995). So argued that a structural approach to class analysis should be complemented by the investigation of concrete patterns of class struggles and alliances; consistently with this position, he did not apply Wright's class analysis in his studies of social class in post-Mao China (So, 2003; 2005). The capacity of Wright's analysis to actually capture the underlying nature of class relations in capitalists societies has also been questioned (see the contributions in Wright et al., 1989).<sup>39</sup>

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<sup>39</sup> Wright acknowledged the validity of these critiques; his theory has consequently gone through a series of reconstructions (see for example Wright, 1989).

Authors writing about working-class mobilization in China have convincingly argued that class analysis in and by itself, even when oriented to the study of class agency rather than structure, is insufficient to understand the subjectivities, the capacity for organization and the forms of protest adopted by migrant workers and laid-off state workers. Hegemony, the institutional and historical context of post-Mao China, the conditions of the dormitory regime, the barriers and opportunities to mobilization embedded in recruitment networks based on ethnicity and place of origin, the reproduction of patriarchal relations on the shopfloor, the relation of different segments and cohorts of the working class to the ideological legacy of Maoism and to the emerging legalistic discourse have been identified as powerful factors that, together with class, contribute to shaping the identities, the forms of protest and the capacity for collective action of the post-Mao working class.<sup>40</sup>

The structural approach adopted in this thesis has a limited capacity to deal with these complexities. In Wright's approach, for example, the relations between class and gender remains undertheorized. Furthermore, Wright's class analysis emerges from the experience of capitalism in Western democratic societies. This raises important theoretical questions about the transferability of his conceptual apparatus to a post-socialist society such as China. Wright's class analysis ultimately relies on a notion of the 'abstract worker' — a worker that is not historically and culturally situated. As argued by Lee (2007: 24-26), such a notion cannot grasp the complexity of the working class experience in China. Ultimately Wright's approach is concerned with the analysis of the material interests generated by the location of individuals in the social relations of production. In order to understand if and under what conditions these material interests may provide a basis for collective action or for a shared identity, it would be necessary to integrate the analyses presented in this thesis with an organic study of the elements pointed out by the previous literature. Such an analysis has not been attempted in this study. Although the study tried to address some of these issues at the empirical level by embedding the survey within a case study and by designing the operationalization of class variables from the field, the theoretical implications of the application of a capitalist class scheme to a post-socialist society have been left unexplored.

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<sup>40</sup> See for example Blecher (2002); C. K.-C. Chan and Pun (2009); Lee (1998a; 1998b; 1999; 2000; 2007); Pun (2005a; 2005b; 2007); Pun, Chan & Chan (2010); Pun & Smith (2007); Smith & Pun (2006), Unger & Chan (2004).

Notwithstanding these limitations, Wright's approach appears adequate for the aims of this thesis. Most critiques of Wright's theory concern its limited capacity to unpack the complex relations between class, non-class forms of stratification and class agency. The thesis is concerned only with assessing the influence of class on the income determination process, not with issues of class agency or class formation. From the point of view of the analysis of material interests and income determination, there is little doubt that Wright's class analysis has produced valid empirical findings (Crompton, 2008). Notwithstanding his criticism, Alvin So similarly acknowledges that, 'thanks to Wright, Marxist class analysis has appeared in mainstream academic journals and prestigious university presses' (So, 1995: 319 ).

It must finally be noted that other relational class approaches have dealt with the 'problem of the middle class'. Goldthorpe's elaboration of the notion of the 'service class' (Goldthorpe, 1982; 1987; Erickson & Goldthorpe, 1992) is in several regards similar, in its empirical application and particularly in the analysis of employee class locations, to Wright's approach. In the case of post-Mao China, I believe however that Wright's class analysis is to be preferred because it provides a coherent conceptual framework for the study of class in social formations characterized by the coexistence of different modes of production. In Goldthorpe's class analysis, the site of employment (state or private sector) does not pose any conceptual problem. What counts in defining social classes are the market capacity of individuals and the differences in their employment relations; as far as people enter into an employment relation through similar labour market institutions, the nature of the employer is largely irrelevant. Wright instead acknowledges that managers, professionals and workers employed in the state sector raise relevant theoretical issues in class analysis (see for example Wright, 1978: 340-6; 1989; 1997: Chapter 15). Furthermore, Wright has elaborated the notion of *mediated class relations* to analyze class when capitalist and non-capitalist modes of production coexist in the same social formation. Although such an analysis lies beyond the scope of this thesis, I believe that Wright's class theory offers an appropriate framework to analyze the class structure of China, where emerging capitalists features interact in complex ways with elements of a statist mode of production. At the same time, China would offer an interesting testing ground for Wright's theory of mediated class relations in social formations characterized by the interpenetration of different modes of production.

### 1.5.2. Empirical limitations

The empirical scope of this research is limited in several regards. In analyzing the material conditions of white collar employees and the characteristics of the regime of production in the NNHTDZ, this study does not deal with what Burawoy calls the ‘social relations *in* production’ (the actual shopfloor relations between management and labour) and predominantly concentrates on one aspect of the ‘social relations *of* production’ (the distribution of surplus in the form of wage and nonwage benefits, not its appropriation). Although I closely observed the relations between managers and local government agencies and participated in several social activities involving managers (working groups, meetings of professional associations, informal networking events and so on), I had limited occasions to observe actual workplace relations between managers and employees.

I certainly had many chances to talk non-managerial employees and young educated job seekers during my stay in Nanjing; these conversations however had a less structured character than those with managers and government officials. The information collected in the course of my informal conversations with non-managerial employees appeared to confirm the elements that emerged in the more structured phases of the fieldwork — the competitive nature of the regional skilled labour market, the absence of direct state interventions in labour markets, the scarce diffusion of despotic practices, the emphasis on consensus and ideology. Nonetheless, my encounters with employees had an erratic character and I was far more frequently exposed to the points of view of management than to the point of view of their subordinates.

Furthermore, several factors placed me at a distance from the people with whom I interacted. I was a foreigner (or, even better, a foreigner squared: an Italian living in Australia doing fieldwork in China); a PhD researcher hosted by a prestigious institution like Nanjing University; I often wore a suit and a tie and carried a business card reporting my position as a consultant of the NNHTDZ Development Corporation; I gave talks and presentations to business audiences; I was accompanied by research assistants and was often introduced to interviewees by staff of the NNHTDZ development zone or by well-known personalities of the local business community.

It must also be said that the NNHTDZ is a rather cosmopolitan environment and this made my position less peculiar than it would have been in other research settings. Several companies employed returned overseas students, most had frequent interactions with foreign managers and investors and several studies had been carried out in the past in the NNHTDZ (generally by foreign business consultancies). I also maintained regular relations with several of the people I interviewed in more informal settings. Although this may have mitigated to a certain extent the distance between me as a researcher and the managers and employees of the NNHTDZ, it is undeniable that our positions were very different. This may have affected the extent to which the impressions and data I collected on the field (which could not be triangulated with direct observations of the labour process) reflect the reality of the working environment in the NNHTDZ. When the conversation shifted (as it often did) to business opportunities and best HR practices, it was clear that my interests and motivations were ultimately not those of a businessman, a manager or a strategy consultant but those of a researcher. This being a mixed-method case study, the design of the questionnaire and the interpretation of the survey data have been influenced as much by theory as by my field observations. If on the one hand this allowed me to situate the survey in a wider context, on the other hand any bias in the information I had access to during the qualitative phases of the study pose a limit to the supposed 'objectivity' of quantitative research.

Finally, this study is limited in scope because it only concentrated on a single occupational group (white collar employees). Relevant sections of the class structure of the NNHDTZ were excluded from the survey — more peculiarly, owners of capital and state employees in the various government offices, police stations and university campuses located within the NNHTDZ. Even more importantly, the study excluded the host of people running the ancillary services required to keep the zone running like peddlers, truck drivers, garbage recyclers, cleaners and janitors, small shop and restaurant owners, informal service providers and the few remaining suburban farmers that were on the point of being evicted from their land to make room for an expansion of the industrial area. Without an in-depth study of these categories, any class analysis of the NNHTDZ is far from complete.



### **1.5.3. Sample size and generalizability of results**

The third set of limitations pertains to the generalizability of the results. This affects to a lesser degree the results of the quantitative analyses that, being based on a clustered random sample, can be extended by inference to the white collar employee population of the NNHTDZ. It should however be noted that the small sample size (about 100 observations) potentially poses some limits to the statistical conclusion validity of results. I tried to contain these problems by adopting statistical techniques that could work well with a small sample size and by restricting the number of independent variables included in the models. I accounted for the features of the sampling design through the use of clustered robust standard errors and probability weights.

More problematic is the external validity of the study itself. From this point of view, the study could be likened to a ‘survey embedded within a single-case case study’. The extension of the results to locations other than the NNHTDZ should in this case rely on what Yin (2003) calls ‘analytic generalization’ — a mode of generalization based on the use of a previously developed theory (in this case, Wright’s class analysis and elements of Burawoy’s notion of regimes of production) as a template against which to compare the results of a case study. The case study is in this sense similar to an experiment that seeks to confirm (or refute) the predictions of a theory.

This being a single-case case study, it was however not possible to control for variations in other theoretically-relevant factors such as sectoral specificities, the institutional environment, the nature of labour markets, the character of the local economy and so on. It would have certainly been ideal to develop a matrix of case studies with different characteristics and compare the findings across study locations. Because of the limited resources available for the fieldwork (including my abilities, my fieldwork connections and my energies), this was not an option. Although the NNHTDZ seems to share the traits identified by previous studies of high-tech development zones in China (Fan et al., 2009; Francis, 1996; Segal, 2003; Walcott, 2003), no conclusion can be reached, on the basis of the evidence provided in the thesis, that the situation described in the NNHTDZ is in any way representative of what happens elsewhere in China — not even within the high-tech sector. A replication of the study in different settings, ideally with a larger sample size,

could provide support to the external validity of the findings.

In order to place the study in its local context, the following section introduces the main characteristics of Nanjing, of the NNHTDZ and of local skilled labour markets. The aim of the following section is to underline how competitive pressures for investment in high-tech sectors have led to development of skilled labour markets subject to systemic capitalist constraints and how local investment attraction strategies are being adapted to the needs of local upgrading.

## **1.6. The study location**

Nanjing, the capital of Jiangsu province, is China's biggest inland port. Located at about 300km from Shanghai and linked via the Yangtze (Changjiang) River to the central and western provinces, Nanjing is a crucial commercial and logistic hub for the so-called 'Yangtze river corridor' connecting the dynamic YRD region to the industrial heartland of China. The city forms the core of a megapolitan area spanning across central Jiangsu and Anhui provinces, which includes the cities of Zhenjiang, Yangzhou, Ma'anshan, Wuhu, Chuzhou and Chaohu (van Dijk, 2005).

Much of the urban transformations occurring elsewhere in China can be observed in Nanjing as well, with the usual combination of high-rise buildings, gated communities and old quarters undergoing rapid development dotting the urban landscape. The city centre is taking on the specialized functions of a CBD; it hosts the financial and service industries and a growing number of national- and foreign-invested producer services companies. Traditional working-class districts in the city centre are experiencing a process of 'fragmented gentrification' centred on gated communities (Wu & He, 2005). Cases of functional transformation are also evident, with some of the quarters retaining traditional architectural features being converted into upmarket leisure and shopping areas. Global luxury brands have their outlets in various shopping malls in the city centre, and efforts to improve the urban architecture are evident in landmark projects like the new Nanjing

Library building and the Nanjing Olympic Center.

Nanjing is part of a local cluster with high incidence of foreign-generated Gross Value of Industrial Output [GVIO], but not of a Foreign Direct Investment [FDI] cluster Cucco (Cucco, 2008).<sup>41</sup> In this it differs from other growth poles in Su'nan such as Suzhou and Wuxi, which are located in a cluster showing significant spatial association in both indicators. In terms of GDP and FDI, Nanjing has been lagging behind the Suzhou - Wuxi area (see Table 1.1 for a comparison between prefecture-level data). The dynamics of foreign investment have also been different in the two areas. Nanjing has attracted less FDI and fewer foreign-invested projects than Wuxi and Suzhou; projects located in Nanjing tend however to be larger in scale.

TABLE 1.1  
Comparison between Nanjing and other prefecture-level cities in Su'nan (2006)

|   | Nanjing | Suzhou | Wuxi   | Changzhou |
|---|---------|--------|--------|-----------|
| GDP per capita (RMB)                            | 46,114  | 78,801 | 72,489 | 44,440    |
| GVIO (100 mn RMB)                               | 4,693   | 12,539 | 7,115  | 3,294     |
| Number of foreign-invested enterprises          | 555     | 3,278  | 1,133  | 712       |
| Contribution of foreign enterprises to GVIO (%) | 39.9    | 66.6   | 35.0   | 31.8      |
| Actual FDI (100 mn USD)                         | 15.19   | 61.05  | 27.52  | 12.51     |
| Contracted FDI (100 mn USD)                     | 30.82   | 159.24 | 80.53  | 32.96     |
| Experts (10,000 people) (*)                     | 19.54   | 12.27  | 14.54  | 8.09      |

NOTES: (\*) scientific and technical personnel with above-average education.

SOURCE: Jiangsu Provincial Statistics Bureau (2007)

The reasons for Nanjing's specific pattern of foreign-investment attraction can at least partly be traced back to its heavy-industrial heritage. Nanjing inherited from its period as capital of the Nationalist government (1927 - 1937) an industrial structure centred on the automotive and the

<sup>41</sup> The results of the Moran's *I* analysis of local clustering in Jiangsu in English are available upon request from the author [email: i\_cucco@fastmail.fm].

chemical sectors; these industries were further developed following the establishment of the People's Republic in 1949. In the reform era Nanjing's logistic advantages, coupled with the presence of important state-owned groups like Nanjing Auto Co. and Yangtze Petrochemical Corporation (YPC), attracted large-scale foreign-invested projects in the automotive and the petro-chemical sectors.<sup>42</sup> Foreign investment has been relevant in related industries like metallurgy, chemical fibres, automotive components, robotics and automation. The electronics and consumer durables industries have also been developed, and have attracted a good share of international activity. The presence of a strong state sector also meant that Nanjing had to go through a period of hard restructuring, with massive workers layoffs hitting the city after the acceleration of SOE reforms in the middle of the 1990s (Wu & He, 2005).

Until the recent past, Nanjing was perceived as a quite conservative city in terms of its industrial development strategies. The city is now trying to assert a new role for itself in the provincial, national and global economy through a reformulation of its growth strategy and industrial policy. Nanjing has in fact a significant advantage over its neighbours: together with Beijing and Shanghai, it is one of the main centres of higher education in China. Nanjing is home to 33 universities and some 80 national-level research institutes. Among them, Nanjing University is consistently ranked among the top five universities in China, while six more institutes appear in the top 50. At the end of 2006, Nanjing's university system was host to 557,100 graduate students (about 300,000 of them in technical subjects and engineering) and 63,700 postgraduates (Jiangsu Provincial Statistics Bureau, 2007). Nanjing can boast a higher number of scientific and technical experts with above-average academic qualifications than Suzhou and Wuxi (see Table 1.1 above).

As part of this strategy of local upgrading, during the 1990s several universities originally based in the central city area were asked or encouraged to set up new campuses in suburban districts, in close proximity to or inside the boundaries of industrial development zones. The new 'Xianlin university city' (*Xianlin daxuecheng*) was established in Qixia district, close to the Nanjing Economic and Technological Development Zone and several campuses were located in proximity of the Jiangning Economic and Technological Development Zone. New campuses were also

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<sup>42</sup> Examples of joint ventures involving large state-owned enterprises are Nanjing IVECO Motor Co (established in 1996); Nanjing Fiat Auto Co (1995); BASF-YPC (2000).

established in Pukou district, which hosts the Nanjing New and High-Technology Development Zone. National level policies like the ‘Torch’ and the ‘863’ Plans provided the institutional framework within which to favour a closer integration between industry and research institutions, and several domestic companies located or relocated to Nanjing in order to obtain access to research facilities or to develop new technologies in cooperation with local universities. The city is thus marketing itself as a favourable place for investment particularly because it offers access to a wide pool of trained professionals.

In the attempt to leverage the strength of its educational system, Nanjing is placing great emphasis on the transformation of its industrial base through the upgrading of existing industries and the development of innovative and high-tech industries, particularly in the ITC sector. This inevitably places Nanjing in direct competition with other growth poles in the YRD, which have since long established themselves as attractive locations for investment (both foreign and domestic) in the same sectors.

#### **1.6.1. The network of high-technology development zones**

The geography of industrial development in Nanjing has followed the lines of post-socialist urban transformation (Ma & Wu, 2005). Industrial activities have been progressively moved out of the centre through the establishment of a number of industrial development zones on the fringe of the city (Figure 1.1). Some of these host a varied mix of industries; others show a more specialized character. The chemical industry, for example, concentrates in Liuhe district. Clustering is partly motivated by location economies, partly by the local government’s willingness to confine industrial activities with adverse environmental externalities to the outskirts of the city. The trajectory of urban growth has followed the axes of industrial development. Urban growth has showed a cyclical path, with moments of edge-expansion followed by periods of in-fill growth (Xu et al., 2007). As a result, the originally separated suburban districts are becoming increasingly integrated with the city centre. This is mainly true for the southern districts, and particularly for the Jiangning

area. For northern districts such as Pukou, the Yangtze river still acts as a powerful barrier hindering their full integration with the centre. Notwithstanding the presence of three bridges across the river, transportation is not easy and the traffic is often heavy.<sup>43</sup>

The high-tech industry concentrates in the city centre and in three suburban development zones. The first is the Nanjing New- and High-Technology Development Zone (*Nanjing gao xin jishu chanye kaifaqu*, hereafter NNHTDZ), located in Pukou district north of the Yangtze river. The NNHTDZ is the location in which this study took place. The NNHTDZ is one of China's fifty-four (as of 2009) national-level New- and High-Technology Development Zones.<sup>44</sup> It started as a local-level initiative, jointly set up by the Jiangsu provincial government and by Nanjing municipality in 1988. It obtained national-level recognition in March 1991, thus becoming the third national-level development zone to be established in Jiangsu.<sup>45</sup>

The total planned area for the zone is 82.5 km<sup>2</sup>, of which 16.5 km<sup>2</sup> had already been developed at the time of the fieldwork. In 2006 there were 124,614 employees in the zone; the gross output value reached 167 billion RMB (about 24.5 billion USD), about than one-fourth of which (6.5 billion USD) was exported. In terms of gross output value, the NNHTDZ ranked third among state-level New and High-Technology Development Zones after Beijing and Shanghai; it was immediately followed by Wuxi, Guangzhou and Suzhou. With the exception of Beijing and Guangzhou, four of the six top-ranking New and High-Technology Development Zones are located in the Yangtze River Delta and are therefore directly competing with the NNHTDZ for the attrac-

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<sup>43</sup> The municipal government is placing high priority on improving linkages with the area north of the Yangtze, with nine additional transportation lines planned to be in operation by 2012.

<sup>44</sup> Chinese New and High-Technology Development Zones are bounded special economic areas with a high concentration of technology- and research-intensive enterprises. They are generally located in close proximity to (or host within their boundaries) major universities and research institutions. They often include specialized industrial parks and incubators for high-technology start-ups. Thanks to the direct involvement of local governments and to favourable national-level policies, companies located within New and High-Technology Development Zones have access to advanced soft and hard infrastructure provided by a varied mix of public, private and quasi-private actors. New and High-Technology Development Zones have much in common with the 'technopoles' (Castells & Hall, 1994). More accurately, they could be characterized as 'technology parks', the third type of technopoles identified by Castells & Hall (1994: 10-11): technology parks aim to generate industrial growth, and innovation functions performed within these parks are mainly defined in terms of economic development. The establishment of New and High-Technology Development Zones is part of a wider effort at restructuring the Chinese Science and Technology System which has been taking place since the mid-1980s. Key steps in this direction have been the 'Spark' Program, launched in 1985 and aimed at promoting technology adoption among rural enterprises; the '863' Plan (1986), which focused on large-scale, high-technology projects with a commercial or strategic potential; and the 'Torch' Program (1988), which aimed at building government-sponsored bridges between research institutions and industry.

tion of domestic and foreign investment in high-technology and research-intensive sectors.

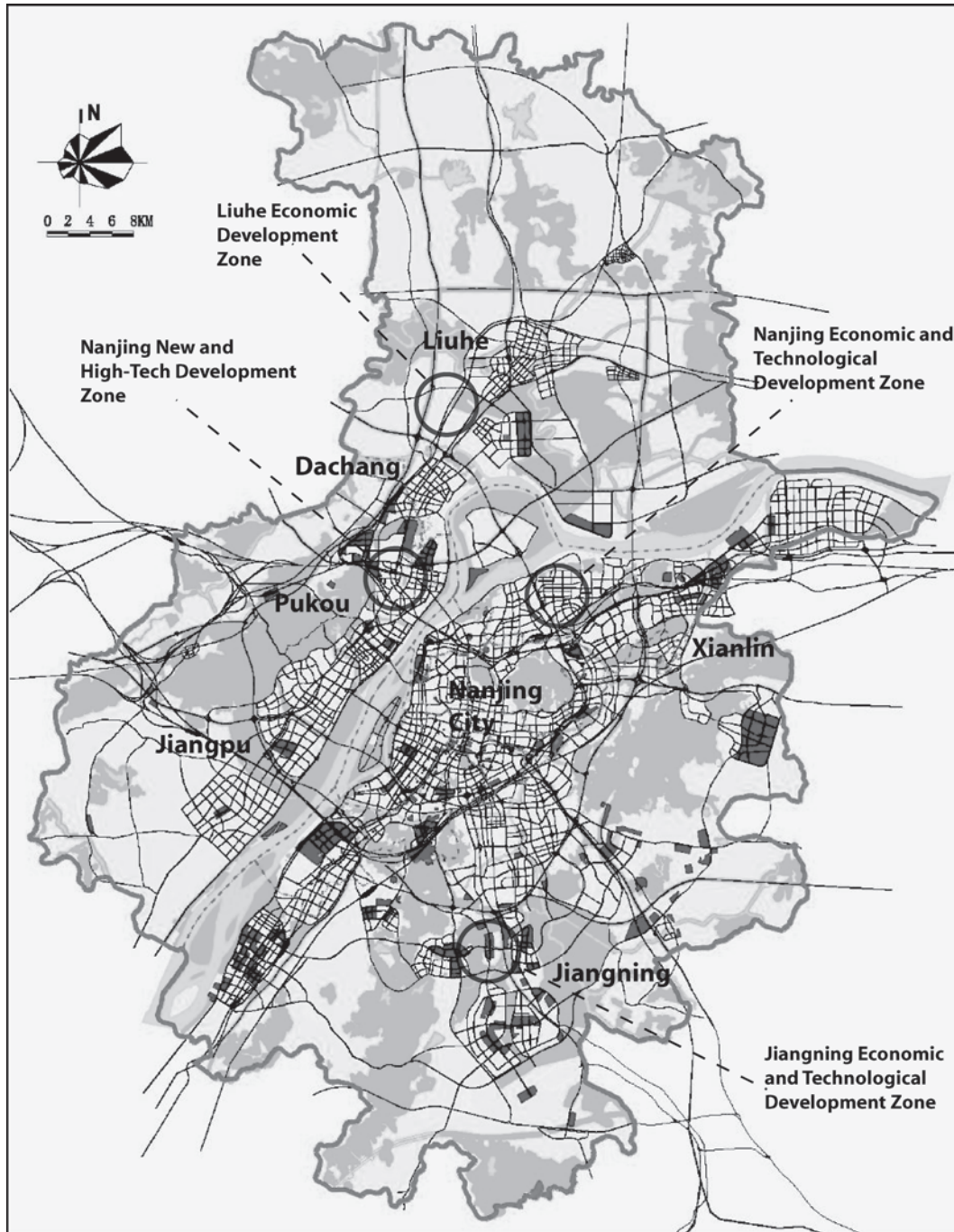
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These national-level policies provided the institutional framework within which to favour a closer integration between industry and research institutions; the establishment of New and High-Technology Development Zones was their natural continuation. Beijing's Zhongguancun Science Park provided in several regards the blueprint for Chinese New and High-Technology Development Zones, the first twenty-six of which were designated by the central government in 1991. A second group of twenty-five was established in 1992; three more New and High-Technology Development Zones were created in the following years, the latest to join the group being the Ningbo Hi-Tech Park in 2007.

<sup>45</sup> The transition from local- to national-level development zone is by no way an uncommon occurrence in Jiangsu, as in the rest of China (Chien, 2008).

FIGURE 1.4

Major industrial development zones in Nanjing (2007)





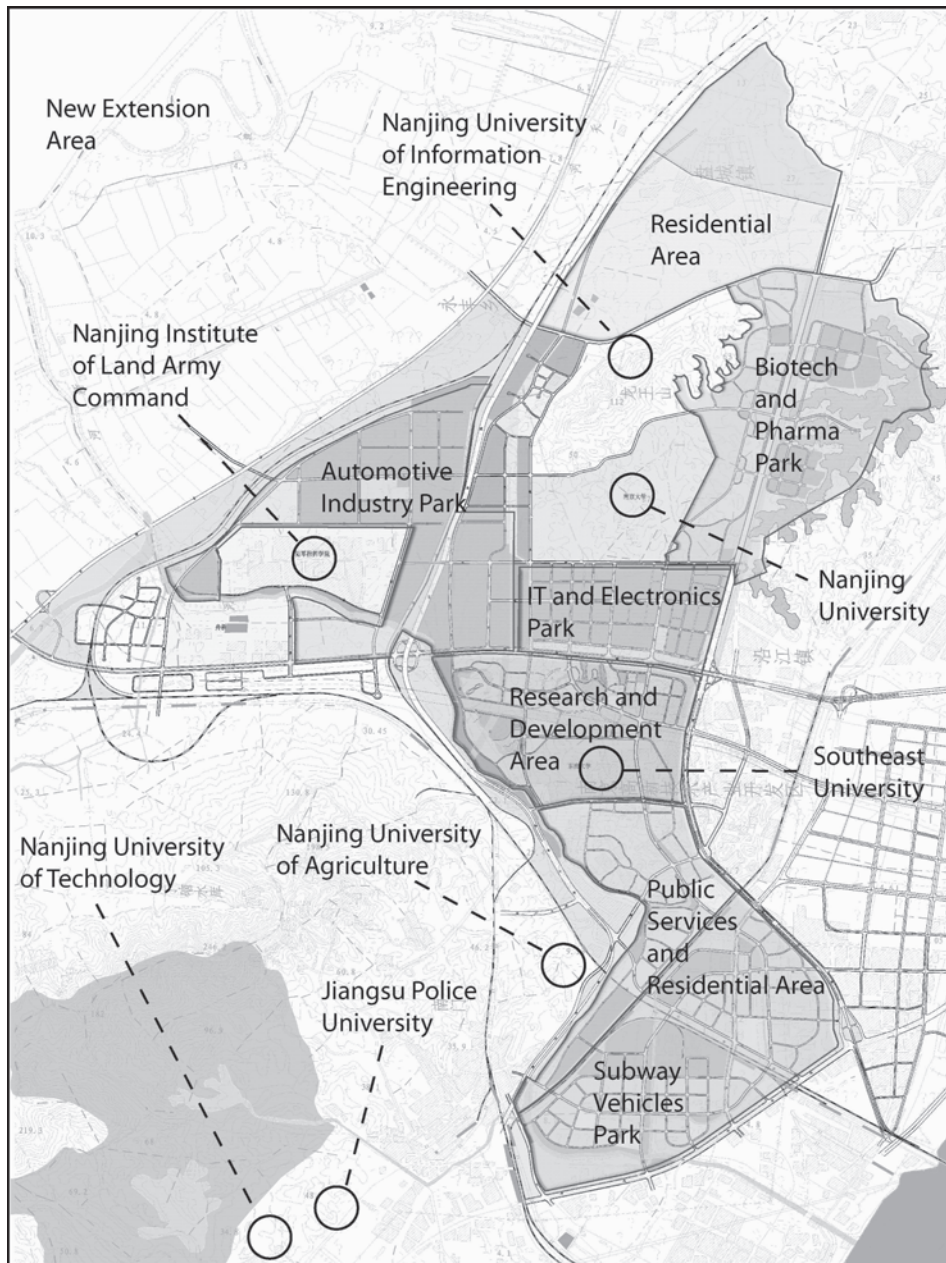
The NNHTDZ includes several specialized industrial parks and incubators for high-technology start-ups, as well as administrative and residential areas (Figure 1.2). Five universities have established new campuses within the zone; among them are top-tier institutions such as Nanjing University and Southeast University. In 2006 the NNHTDZ hosted 224 enterprises with officially-recognised high-tech status (about half of those registered in Nanjing), operating in areas like IT, electronics, biotechnology, new materials, optical and laser technology. Among them are several foreign and multinational enterprises such as Azko Nobel, Ericsson, Honeywell, Satyam and Siemens.

The second high-tech pole in Nanjing is the Jiangning Economic and Technological Development Zone (*Nanjing Jiangning jingji jishu kaifagu*, hereafter JETDZ), located in Jiangning district, south of the city centre. It was established in 1992 by Jiangning county, then a separate county later annexed to Nanjing municipality in 2000. The JETDZ was upgraded to provincial-level development zone in 1993, and was eventually recognized as a national-level Economic and Technological Development Zone in 1997. The JETDZ has been among the most successful development zones in Nanjing, and it is one of the major hubs for foreign and multinational companies. Among the companies operating within the zone are global players such as Ericsson, Fiat, Flextronics, Ford, Motorola, Siemens and Toshiba.

The third high-tech pole is the Nanjing Economic and Technological Development Zone (*Nanjing jingji jishu kaifagu*, hereafter NETDZ). Located in the north-eastern suburban district of Qixia, the NETDZ started operations in 1992 and gained the status of state-level Economic and Technological Development Zone in 2002. Its sectoral specialization overlaps with the previous two, since key sectors targeted by the zone are IT, electronics, biotechnology and new materials. It has attracted multinational companies such as Fujitsu, LG, Nikon, Sharp, Shell and Siemens. Finally, central city districts are trying to capitalize on the long-established presence of universities and research institutes by creating smaller high-technology poles like the Gulou Science and Technology Park and the Zhujiang Road High-Tech Development District. Rather than being located in bounded industrial zones, the central innovation districts blend with the surrounding urban environment.

FIGURE 1.5

The Nanjing New- and High-Technology Development Zone (2007)



The level of coordination between these initiatives is very low and, rather than building a citywide high-tech innovation system, the growth of new high-tech poles is leading to intra-city competition for the same potential investors (van Dijk, 2005). Inter-urban competition adds a further dimension to the regional competitive pressures emanating from other areas in the YRD.

### **1.6.2. New forms of competition between districts**

The way in which Chinese localities compete for investment attraction is changing, particularly if their aim is to attract investment in high-technology sectors. Conventional investment attraction strategies based on a combination of tax incentives, low land prices and cheap unskilled labour are less viable, due to more restrictive central policies.<sup>46</sup> Tighter regulations on land conversion were imposed by the central government to counteract the proliferation of development zones at the local level and the consequent expropriation of agricultural land for industrial uses (Cartier, 2001). Furthermore, starting from January 2007 foreign-invested firms are not exempted from the land-use tax, as it was instead common in the past. Even more importantly, the 2007 reform of the corporate tax system tied tax incentives to the sector of operation of the company, de facto ending the preferential tax regime automatically enjoyed by foreign-invested companies and by companies located in development zones.<sup>47</sup>

<sup>46</sup> Cheap unskilled labour is largely available in Nanjing. The main reservoirs of cheap labour are the underdeveloped rural areas of Subei and Anhui. Even when employing unskilled labour, most high-tech companies still require targeted training services. Training is often arranged with the help of development zones administration or outsourced to specialized staffing and recruitment companies. The cooperation of local governments in the sending areas is often sought after, since they can help arranging the provision of training courses prior to hiring and can ensure the availability of a constant supply of labour (field interviews and observations).

<sup>47</sup> The new Enterprise Income Tax Law of the People's Republic of China, adopted by the National People's Assembly on 16 March 2007 and effective from 1 January 2008, stipulated a unified income tax regime for foreign-invested and domestic enterprises. The new Income Tax Laws marks the end of the preferential tax treatment conceded in the past to foreign-invested and export-oriented enterprises. The preferential tax treatment typically consisted in the exemption from the corporate income tax for a period of two years (starting from the first year of profitability) followed by a 50 percent reduction of the corporate income tax for the following three years. With the new Enterprise Income Tax Law, the unified tax rate is set at 25 percent for both foreign and domestic enterprises; foreign-invested enterprises set up before the promulgation of the new Income Tax Law continue however to enjoy preferential tax treatment for five years (Art. 57). The focus of the new preferential tax system has shifted away from the location and origin of the investment, and is now aimed at encouraging investment in strategic sectors. The income tax rate can in fact be reduced or waived only for 'important industries and projects whose development is supported and encouraged by the state' (Art. 25). This definition includes enterprises involved in agriculture, fishery, forestry, husbandry and environmental protection; the provision is also extended

Apart from these general constraints, localities trying to attract investment in high-technology sectors face specific problems. Chinese high-technology parks cannot simply follow the model of their Western counterparts. Technopoles located in more advanced economies can in fact rely on a dense networks of already established institutions which provide the backbone to local clustering dynamics. For developing countries such as China

‘[...] much more is needed in the form of government support and development of underlying institutions to support activities in economically privileged spaces. Examples include enforcement of intellectual property protection laws, an effective and solvent financial system, and amenities to entice expatriate native skilled labor to return’ (Walcott, 2003: 2).

While the factors listed by Walcott are all at play in Nanjing, some issues need to be pointed out. First, the government (either at the central or local level) is not the only actor involved in the provision of support activities needed to stimulate investment in technology- and research-intensive sectors. Second, while ‘expatriate native skilled labour’ is actively targeted by some of the development zones in Nanjing,<sup>48</sup> much greater emphasis is placed on mobilizing the strengths of the local university system in the service of qualified local growth.

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to enterprises involved in infrastructural projects approved by the state and to projects involving technology transfers. More relevantly to the case of the Nanjing and its high-technology development zones, the income tax rate is lowered to 15 per cent for ‘important high-tech enterprises’ (Art. 28). The recognition of high-technology status (hence the eligibility for the reduced tax regime) is tightly regulated by the centrally-issued ‘Administrative Measures for the Recognition of High- and New-Technology Enterprises’ (*Gao xin jishu qiye rending guanli banfa*; GuoKeFaHuo [2008] No. 172, 14 April 2008). One of the key criteria for obtaining high-technology status is that the company must operate in one of the state-encouraged high- and new-technology areas (*Guojia zhongdian zhichide gao xin jishu lingyu*) (Art. 10). The encouraged areas are listed in the Appendix to the Administrative Measures; they include sectors such as IT, biotechnology, new materials, aviation and aerospace. The specifications for eligibility are very detailed and the Appendix lists individual products and processes. The recognition of new- and high-technology status is direct competence of the local branches of the Ministry of Science and Technology. The Ministry has dedicated offices in New- and High-Technology Development Zones, thus providing a more streamlined process for companies investing in these areas. In the course of investment negotiations to which I assisted in Nanjing, the issue of how ‘flexible’ is the recognition of high-tech status (and consequently access to a lower tax regime) was often brought up by potential investors. In all cases, development zone authorities very clearly stated that there was no way to circumvent central regulations concerning the recognition of high-tech status, even when such recognition was delegated to offices located within the development zone itself (as it was the case for the NNHTDZ). The only way in which the NNHTDZ could favour its potential investors was by providing technical assistance with the application, for example by identifying which components or processes were more likely eligible for high-tech status. Eligibility criteria for a lower tax regime also require that at least 30 per cent of the total workforce must have above-college qualifications, and ten per cent of the total workforce must be engaged in R&D activities (Art. 10).

Development zones with a focus on high-tech sectors such as the NNHTDZ and the JETDZ are striving to increase their capacity to attract, train and retain local graduates. They hope in this was to build a pool of experts, managers and skilled workers living within the boundaries of the development zone or within commuting reach. This is not only because the availability of skilled human resources is perceived as a key investment factor for innovation-driven companies. It is at least in part because, to obtain high-technology status and be entitled to favourable tax treatment, at least 30 per cent of their workforce must have above-college qualifications (see footnote 32 above).

The streamlining of bureaucratic procedures for the acquisition of land, capital, permits and production facilities; the creation of a desirable living environment for professional and managers; the provision of advanced training services targeted to the needs of the enterprises are all part of the repertoire of strategies used by high-technology development zones. In all these regards, the evolving needs of companies and the extent of regional competition have opened a space for private service providers whose functions at least in part overlap with those of development zone administrations. In the following pages I discuss these issues in some detail drawing on information collected in the course of the first, qualitative phase of the study. Codes in square brackets refer to the face-to-face interviews listed in Appendix A, Table A.1. Where no source is explicitly indicated, information has been collected through participant observation.

### **1.6.3. Investment services: development zones and private service providers**

Investing in China, particularly for a foreign company, is not an entirely straightforward process — even when this happens in the facilitated environment of an industrial development zone. In order to start its operations, a company needs to go through a series of steps including: obtaining an environmental assessment, a business licence, an investment approval, a tax registration certificate,

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<sup>48</sup> The NNHTDZ for example established the Jinling Park for Overseas Scholars, which provides incubation services, venture capital and other facilitations (including a privileged path to an urban *hukou*) to returned Chinese students willing to set up an enterprise within the zone.

a land grant and related construction approval for production and residential facilities. Apart from this, obtaining access to capital and the concession of facilitations such as the exemption from the import duty tax for equipment, materials and machinery or the recognition of high-technology status involve different processes.

To this should be added that land and labour costs are increasing in the more advanced areas of Su'nan. As already noted, the central government set tighter regulations for the conversion of agricultural land to industrial uses and this is driving land prices up. For this reason, less developed areas such as Subei and Anhui are becoming attractive alternatives for companies operating in labour-intensive sectors, given also the wide availability of cheap unskilled labour in these localities. Nanjing and other areas of the YRD are increasingly catering to companies looking for factors such as access to better infrastructure, proximity to developed urban markets, availability of skilled labour and research institutions, integration with specialized local clusters (particularly in high-technology sectors or in the automotive sector), access to a wide supply base, availability of local partners and good producer services. Providing superior services in these areas has become one of the main objectives of high-tech development zones in Nanjing.

One of the advantages offered by high-tech development zones to potential investors is that most of the bureaucratic procedures can be handled within the zone through dedicated offices or 'one-stop services' to which municipal and provincial authorities delegate powers of approval. The timings and costs involved in the different steps of the investment process can in this way be negotiated (to a greater or lesser extent according to the relevance of the project) with a single interlocutor. For example, in both the JETDZ and NNHTDZ the official price of land at the time of fieldwork was about 192,000 RMB per *mu*.<sup>49</sup> In reality, official rates are often only a starting point for negotiations. While the official price the company has to pay for the land is fixed, lower prices can be achieved through different forms of payback offered by the development zones, such as the provision of free or low-cost housing that the company can then pass on to its employees,

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<sup>49</sup> The planning, development and allocation of land (for both industrial and residential uses) is controlled by the Construction Department (*jianshi chu*) of the development zone administration. Land concessions are valid for 50 years and the company has the right to destroy anything that is on the land and build its own facilities (subject to the approval of the Construction Department). Land and production facilities can also be rented at the price of 15 RMB/sqm per month (for industrial buildings) or 30 RMB/sqm per day (for office space).

access to preferential credit or the concession of exemptions from local taxes and fees. These agreements are part of the initial investment negotiations, and having to deal with a single interlocutor rather than with a plurality of offices and bureaus makes sure that investment conditions can be discussed at the very beginning. At the same time, high-tech development zones are trying to provide a diverse range of investment and business services to their potential investors including tax and accounting services, access to sources of capital, guidance on Chinese labour regulations, assistance with the identification of local partners and suppliers, real estate and construction services and human resource services such as the training and recruitment of employees.

In doing so, high-tech development zones are increasingly moving away from a hierarchical, bureaucratic mode of operation. The case of the NNHTDZ well exemplifies these processes. In order to better respond to the evolving needs of local competition for investment, the administrative structure of the NNHTDZ underwent a far-ranging restructuring process. Part of the former administrative structure was given independent status in 2006, when it was renamed the Nanjing New and High-Technology Economic Development Corporation (*Nanjing gao xin jishu jingji kaifa zonggongsi*, hereafter Development Corporation). The Development Corporation is a wholly state-owned corporation (*guoyou duzi qiye*); while operating under the direct control of the management committee of the NNHTDZ, the Development Corporation has an independent budget, has residual claims on the income derived from new investments and has a good deal of independence in hiring and management policies.

Among the approximately 80 staff of the Development Corporation many are people with a professional or technical background coming from the private sector, often from foreign-invested enterprises. The General Manager of the Development Corporation used to be a senior manager in an important high-tech foreign enterprise. Similar career paths can be found among middle-level managers. For example, the manager of the Development Corporation's Human Resources department (that provides recruitment and consultancy services to companies registered in the zone) worked for ten years in high-tech Japanese and Korean companies. Other middle-level managers in charge of investment attraction policies used to work for foreign institutes of commerce and trade promotion bureaus. Several of them are dividing their time between the Development

Corporation and private consultancy and service companies. The Corporation also employs returned overseas students and is sending some of its staff abroad to receive further education.

Among its other tasks, the Development Corporation provides venture capital to companies operating within the zone, or otherwise facilitates their access to external sources of capital. It also helps companies gaining access to advanced technology, research facilities and opportunities for cooperation with R&D organizations within the zone. The Development Corporation assists enterprises with finding suitable industrial and residential facilities within the zone. Companies can either rent from the Development Corporation buildings (or parts thereof) already available within the zone; ask the Development Corporation to build dedicated facilities according to their specifications; or can receive assistance for building their own facilities once they have obtained long-term use rights on land. The Development Corporation is in this assisted by a separate state-owned real-estate company, again operating under the control of the NNHTDZ administration. Because of its need to attract experienced managers and professionals with a direct experience of the private sector, the remuneration and working conditions of employees of the Development Corporation are similar to those offered by private companies within the NNHTDZ.<sup>50</sup>

As high-tech development zones are moving towards more differentiated models of service delivery, private entities are taking on some of the functions of development zones. An example is the Yangtze Development Corporation [YDC], founded in 2004 by ten businessmen from a neighbouring province.<sup>51</sup> Their original intention was to focus on industrial real estate development. With time, they started offering a wider range of services similar to those provided by development zones. They obtained land grants in two development zones in Nanjing, for a total of about 1,000 *mu*. They built industrial and office facilities on the land, which they later rented out to investors, usually for large-scale industrial projects. Apart from providing land, industrial and residential facilities, they assisted their clients in finding capital (they were planning to start their own venture

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<sup>50</sup> At the same time, my interviews with managers of private companies in Nanjing showed that private companies feel the need to recruit managers with some experience of the state bureaucratic system. This was not only because employees coming from the state sector could offer a privileged access to local political networks. They could also contribute a better knowledge of bureaucratic procedures and of the functioning of the local state machine.

<sup>51</sup> Yangtze Development Corporation is a fictitious name.



capital company), took care of all bureaucratic procedures and negotiated investment conditions with the zone authorities. Their main service was, in this sense, to help investors obtain a better deal by taking care on their behalf of the networking with local officials. They also provided a range of high-quality consultancy services, in this being advantaged by their greater flexibility in employing foreign managers and consultants. In practice, the YDC was a ‘development zone within a development zone’; it was not the only case in Nanjing.

#### **1.6.4. Upgrading the local environment**

As a second example of the way in which the evolving needs of global and national capital are changing the modes of operation of high-tech development zones in Nanjing, I briefly describe the attempts made by the NNHTDZ to requalify the local urban and business environment. Again in this case, the NNHTDZ offered an interesting vantage point. The NNHTDZ is located in a newly-developed area (Pukou district) to the north of the Yangtze river. As already noted, linkages between the southern and the northern part of the city are not well developed and few people are willing to commute from the city centre to Pukou on a daily basis. Development zones located south of the river, being linked to the city metro system, did not face this problem.

Direct observation and interviews with company representatives confirmed that location was perceived as a major problem in the NNHTDZ.<sup>52</sup> Companies were placing strong pressures on the zone administration, which advertised the availability of highly-skilled labour within the zone as one of its main selling points. It is certainly true that several universities had set their new campuses within the zone. In reality however, the living environment of the NNHTDZ was not particularly attractive to professionals and managers (and even less so to expatriates) who preferred to

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<sup>52</sup> Complaints about location appeared to be genuine, since the attitude of companies towards the NNHTDZ was otherwise largely positive. Almost the totality of the managers interviewed in the NHTDZ expressed in fact strong satisfaction for the business environment in the zone; for the support to research and innovation activities, including the clustering of similar industries in specialized parks; for the preferential policies available and for the assistance they received from the NHTDZ authorities. In six cases, the policy environment of the NNHTDZ was actually quoted as the main reason that led the company to invest in the NHTDZ (interviews [CS5], [CS12], [CS13], [CS15], [CS16], [CS24], [CS27]). Comments were instead unanimously negative for what concerns location and the linkages to the city centre.

live closer to the city centre. While the NNHTDZ obtained national-level recognition soon after its creation, other development zones in Nanjing maintained for longer periods the status of local-level initiatives or (as in the case of the JETDZ) were originally placed under a separate county administration. Although the national-level status produced a more stable institutional environment and acted as a guarantee to potential investors, the NNHTDZ had less leeway than its immediate competitors in converting land to residential uses.<sup>53</sup> Jiangning and Qixia offer therefore a more diversified urban environment, with luxury enclaves including upmarket gated communities and Western-style villas. It is in these areas, as well as in the city centre, that the majority of the foreign business community and upwardly mobile managers and professionals reside.

To close this gap, the NNHTDZ was trying to improve the housing stock available within the zone. Some luxury villas had been built, with the involvement of the already mentioned real-estate company and in partnership with private investors. The Development Corporation was also trying to build stronger linkages with training providers and business associations in Nanjing, with the aim of starting a program of business seminars and workshops that could offer networking opportunities to the managers and professionals living in the zone. Monthly breakfast seminars for senior managers provided a platform for exchanging ideas with the zone administration, and the Development Corporation had entered into negotiations with a number of foreign partners to establish an international school within the zone. Although these attempts were still in their initial phases, the concern for improving the local living environment was leading the NNHTDZ administration to more closely interact with private enterprises and to mimic their forms of networking and socialization.

#### **1.6.5. Skilled labour markets in the NNHTDZ**

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<sup>53</sup> As one of the interviewees said ([CS25], a middle-level manager in a development zone administration), when the central government sends an inspection to Nanjing '[...] if the inspection concerns economic development, they accompany them to Jiangnin; if the inspection is about respect of the regulations, they show them Pukou'.

According to my interviews with managers and recruitment service providers in the NNHTDZ, companies often relied on impersonal market channels for their recruitment needs. The internet, advertisement in local newspapers and job fairs were the most common recruitment channels mentioned by interviewees. Personal channels such as direct referral, employment after internships / training schemes and recommendations by partner universities only covered a small part of the needs of the companies. Targeted recruitment channels (such as the use of head-hunting agencies or a direct proposal to a potential candidate) were even more rarely used, and generally reserved for very senior or highly specialized positions. While some of the companies managed the recruitment process internally, others had outsourced it to specialized human resources companies including state-owned FESCO.

Internet (websites like [www.51job.com](http://www.51job.com)), newspapers (such as *Jinling Kuaibao* and *Xiandai Kuaibao* and job fairs were quoted as the main recruitment channel by all but two companies, both of them operating in close cooperation with local universities. In the first case (interview [CS15]), the company had licensed technology from a university located with the zone and was therefore able to directly recruit graduate and undergraduate students who had been working on projects related to the technology. In the second case (interview [CS5]), the company had set up a shared curriculum with a university located within the NNHTDZ, whereby students spent three years in the university and the last year in the company. Both companies could therefore choose their new employees among the graduates of the programs. These were however special cases, since such a close integration with educational institutions was only rarely achieved.

Personal channels (internships, referrals and recommendations from training institutions) were reserved to those segments of the skilled labour market in which it was hard to find qualified candidates through impersonal channels, or when it was important to identify promising candidates for lengthy and costly training. Some cases may help to clarify these points. In the company for which interviewee [CS1] worked, trainee programs were reserved to technicians with high potential, identified through the recommendation of professors in major universities both in Nanjing and in neighbouring provinces. Interviewee [CS13] reported that their company, which only undertakes R&D but not manufacturing in Nanjing, was trying to build closer linkages with local

universities in order to more easily have access to qualified post-graduates with direct experience of their very specialized field. For interviewee [CS22], referrals were used extensively in the start-up phase. Most of their initial employees were recruited from a former SOE, so as to guarantee that people had the relevant experience and established business networks that were otherwise not available on the labour market.

Targeted recruitment and head-hunting agencies were reserved for senior positions and for very specialized sectors. Interviewee [CS2] reported that their company, which was one of the few in its field in Nanjing, could not rely on a wide enough pool of experienced professionals; in this case, head-hunting covered about five per cent of their recruitment needs. Interviewee [CS12] similarly mentioned that the company found it difficult to recruit experienced professionals locally and asked employees working for other branches in China to relocate to Nanjing. Several interviewees quoted the case of project and process managers who were very much in demand, particularly by start-ups, and whose recruitment required the services of specialized head-hunting agencies.

Recruiting was however only part of the problem; retaining skilled human resources appeared in fact to be particularly difficult in the presence of competitors both in Nanjing and in other locations in the YRD. According to most interviewees, turnover rates for unskilled labour were remarkably low (between three and four per cent per year), but they could be significantly higher for specific sectors and professional profiles.<sup>54</sup> High turnover rates appeared to be a widely felt problem among the interviewed companies. An extreme case was reported by interviewee

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<sup>54</sup> These figures are significantly lower than those reported in studies performed in other areas of China. The low turnover rate for unskilled labour was however confirmed by local government sources and by employment service providers operating in Nanjing. The difference is due to the sectoral specificities of the Nanjing New- and High-Tech Zone. Most previous studies of employment conditions in China have in fact focused on labour-intensive sectors traditionally hosted in export-oriented development zones. As this literature consistently reports, these sectors are marked by poor enforcement of labour standards coupled with the widespread adoption of just-in-time production systems based on a flexible, unskilled, unprotected workforce largely composed of young rural migrants (see pp. 2-3 above). The case of the Nanjing New- and High-Technology Zone is rather different. Because of the concentration of high-technology and research-intensive enterprises, even the less skilled occupations generally require a significant degree of training, often provided by the zone authorities or by external private service providers. Even for the most unskilled workers, replacement costs are significantly higher than in labour-intensive enterprises. This in turn encourages the use of retention policies aimed at reducing turnover rates. Furthermore, labour regulations are more tightly enforced in the Nanjing New- and High Tech Zone (see Chapter 3, Section 3.5). This is partly due to the national character of the Zone (which means tighter controls and more pressure to comply with regulations), partly to the attempt to build an institutional environment capable of attracting domestic and foreign knowledge-intensive enterprises.

[CS9], whose company recorded a turnover rate of 200 per cent in four years. Interviewee [CS11] had seen the entire core management team change in the previous year, while the company for which interviewee [CS27] worked had to replace about 20 per cent of its skilled employees in 2006.

The few interviewees whose companies did not experience high turnover rates motivated this with two main reasons: either they were famous multinational enterprises, and therefore their employees knew that working for them would be an asset in their future careers (interviews [CS2] and [CS5]); or they were young start-ups, growing very fast and therefore able to offer good career development opportunities to their staff (interviews [CS6], [CS15], [CS18] and [CS24]). Start-ups were perceived as particularly aggressive competitors; some of the interviewees reported that, in order to build their employee base, young companies attracted employees from their competitors by offering salaries about 30 per cent higher than the norm (interviews [CS8], [CS1] and [CS27]). These salary levels were not sustainable for more established companies.

According to most interviewees, the dynamics of turnover were different for different segments of the labour force. Two categories were generally found to more easily leave the companies: young employees — particularly when recruited through impersonal channels soon after graduation — who after having acquired some job experience could hope to find better employment; and middle-level managers and experts. Senior-level managers and highly-qualified experts with relevant work experience were difficult to recruit but tended to be more loyal to the company. Turnover had particularly severe consequences for companies operating in very specialized fields, since proficiency was achieved only after several years of on-the-job training and replacement costs were very high.

All but four interviewees complained in various degrees about the real access to skilled human resources granted by the NNHTDZ. Although university graduates were easily available in the NNHTDZ (thanks to the presence of several university campuses within the zone) as well as in Nanjing, the HR managers I interviewed unanimously minimized the relevance of formal education. Having graduated with good grades from a high-ranking university was of course seen as an

important achievement. Nonetheless, within a corporate environment characterized by deep transformations in management and organisational practices, far greater importance was placed on the 'soft skills' that the Chinese university system is supposedly unable to foster. Teamwork, leadership, motivation, autonomy, the capacity to propose new ideas and the adherence to the corporate ethos were perceived as the elements without which a formal education was, in itself, of little value to the company. For this reason, most of the companies were expending significant efforts and resources in setting up 'corporate culture' programs. Furthermore, most of the companies in the NNHTDZ operated in highly specialized fields that required a relevant amount of on-the-job, targeted training.<sup>55</sup>

The four interviewees who seemed overall satisfied with the degree of access to valuable skills in the NHTDZ were employed by companies placed in a relatively privileged situation, since they could rely on direct linkages with universities within the zone and could therefore be select and train their potential employees at an early stage. In the case of interviewees [CS5] and [CS15], their companies had established close cooperation with universities and could thus rely on graduates that they had already trained for their specific needs. Interviewee [CS24] worked instead for a company that utilized a technology developed in partnership with a local university. The company could therefore directly employ graduate students who had participated in the program. The last case was quoted by employee [CS13], who worked for a small and young foreign-owned company exclusively focused on R&D. The company could afford enough company cars to drive all its employees to and from work, thus eliminating the need for them to commute using public transports or the shuttle-bus services provided by the NNHTDZ. These services used the far more congested First Changjiang Bridge, while the company cars of [CS13] used the Second Changjiang Bridge (with a 20 RMB toll per trip). This could greatly shorten travel time during peak hours, and it helped to attract people with the right skills.

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<sup>55</sup> In this regard, it is also important to notice that several studies of income determination in post-Mao China provide empirical evidence that returns to education are significantly lower for professional and managerial employees or for people in higher-earning groups than for people in lower rungs of the income or occupational structure (Gustafsson & Li, 2001; Knight & Song, 2003; Zhao & Zhou, 2002).

Staffing problems were overall one of the most frequent topics of discussion during the period I spent in the NNHTDZ. Company representatives frequently reminded the NNHTDZ authorities that more effective initiatives were needed on the part of the zone. The NNHTDZ administration had devised three main strategies to overcome its disadvantage in attracting and retaining employees with the required skills. The first, as already mentioned, was the improvement of the local living environment and the construction of a high-quality housing stock. The remaining two were the provision of HR and recruitment services and the funding of training organizations catering to the needs of, and directly cooperating with, enterprises in the zone. The NNHTDZ hoped in this way to ensure that the presence of universities and research centres within its area could actually be leveraged in favour of potential and actual investors. In all these cases, the attempts made by the NNHTDZ to influence the functioning of labour markets within the zone faced obstacles that emanated from the competitive pressures of ‘free’ (i.e., non-administratively restricted) labour markets that clearly conformed to a capitalist logic.

The NNHTDZ had established a Human Resources (HR) Department which, among its other functions, provided recruitment services to companies located within the zone. Companies could utilize for free the recruitment branch of the HR Department, or could outsource recruitment services to external providers at preferential rates negotiated by the HR Department. Several companies utilized the services of the HR Department, and were overall satisfied. Some however complained because the HR Department had not been able to meet their demands in due time. The HR Department was basically acting as an external Recruitment Services Provider, and was ultimately relying on the same labour market channels that were available to companies or other specialized recruitment agencies.

The NNHTDZ also invested in several training projects catering to the needs of the companies. The involvement of the NNHTDZ could take different forms. In the more traditional model, a specialized training and research centre was jointly established by the NNHTDZ and one of the universities within the zone. The most relevant case was the Software Institute of Nanjing University, established in 2000 with the joint support of the NNHTDZ and Nanjing University. The Software Institute was expected to contribute to the development of the NNHTDZ in two regards: by

offering companies in the NHTDZ the opportunity to recruit interns among students in their last years of university; and by attracting further investment in the field of software through the availability of local expertise. In the case of the Software Institute, the NNHTDZ constructed the main building and the teaching laboratory facilities; it continued to provide financial and logistic support after its foundation.

In a second, more entrepreneurial model, the NNHTDZ directly invested in a training services company through one of its several wholly-owned subsidiaries, generally the Nanjing New and High-Technology Development Corporation. In this case, the partners of the NNHTDZ could be private companies, other state-owned and collective enterprises or a combination of both. An example of the second model is the Jiangsu Microsoft Technology Centre. The Microsoft Technology Centre was hosted in the Nanjing Software Park, located within the NNHTDZ. The Microsoft Technology Centre was set up in cooperation with Microsoft and could count on high-level support from the provincial and municipal government. The Technology Centre had among its several aims the provision of training in software and related technologies both through short-term courses and through a 3+1 shared program with local universities. The platform hosting the Microsoft Technology Centre was the Jiangsu Sowell Software Technology Co., Ltd, formally a private company with strong government backing. At the time of the fieldwork, the Nanjing New and High-Technology Development Corporation held one-third of the shares of Jiangsu Sowell.

The aim of these initiatives was twofold: first, to increase the pool of skilled human resources available in the zone; second, to promote effective linkages between universities, training organizations and companies within the zone so that targeted training programs aimed at developing skills in high demand could be designed and implemented. The success of these initiatives has been mixed. In several cases, these initiatives led to cooperations with important domestic and multinational companies both in Nanjing and elsewhere in China. They had however not been able to favour the localization of skilled human resources within the NNHTDZ.

In the case of the Software Institute for example, among the 170 graduates of the 2006 academic year only 23 found employment in Nanjing; few of them in the NNHTDZ. Consistently



with the geography of inter-provincial competition, 74 graduates left Nanjing for other locations in the YRD. It is interesting to compare the case of the Software Institute to the experience reported by interviewee [CS5], who worked for a private foreign-invested company that, as mentioned before, had set up a shared curriculum with one of Nanjing's leading universities with the aim of training its future staff. The company had only been able to retain about 30 of the 180 graduates the program produced in the preceding four years, far below its needs. In both cases, graduates who had participated in programs outside the traditional university system and had been exposed to corporate practices appeared to be highly mobile.

It is also important to note that the initiatives taken by the NNHTDZ were aimed at facilitating the access of companies to skilled human resources, not at restricting the mobility of individuals. Even when the state — in this case the NNHTDZ administration — was attempting to intervene in the functioning of skilled labour markets, it had to do so within the constraints of capitalist competition acting between companies as well as between localities. Skilled labour markets in Nanjing appeared therefore to strictly conform to a capitalist logic: workers were recruited on open labour markets; they were not administratively restricted to a specific employer or sector, but could choose an employer of their liking; they could freely switch to a better employer, if given the opportunity to do so; and they could altogether retire from the labour market if they wished to. Although obtaining an urban *hukou* was still a requirement for working in Nanjing, according to the interviewees this was not a particular problem since most of the people they employed had studied in Nanjing and could permanently transfer their residence to Nanjing with relative ease (see also Fan et al., 2009). Judging from the interviews, the main driver of job mobility in Nanjing was the combination of salaries, benefits, career opportunities offered by companies to their employees. Their distribution in relation to class locations is analyzed in Chapter 3.

Finally, the role of trade unions in the NNHTDZ seemed negligible. According to managers as well as to most employees, unions were more active in organising outings and other social initiatives than in mediating the relations between management and labour.

## **1.7. Structure of the thesis**

This work is structured as a thesis by publication. The body of the thesis is composed of this Introduction, three empirical papers and Conclusions; the thesis also includes two Appendices. The papers have been prepared in a format suitable for submission to academic journals. Each paper is preceded by a brief introduction that ties it to the general argument of the thesis and is followed by its bibliography.

Each empirical paper addresses a specific aspect of the relation between class and inequality in the NNHTDZ. The first paper (Chapter 2) explores the relation between social class and wage inequality through regression analysis. Results show that class location is a significant determinant of wage inequality even after accounting for individual-level factors such as education and work experience.

The second paper (Chapter 3) investigates the distribution of nonwage benefits across class locations. The study utilizes a Poisson model to estimate the impact of class and non-class factors on the distribution of three categories of benefits: benefits linked to long-term career prospects, benefits linked to income and benefits linked to basic labour standards. The paper shows that class has an important mediating effect on returns to individual-level attributes. Positive returns to education and work experience are in fact only accessible (in the case of long-term benefits) to white collar employees in non-working class locations.

The last paper (Chapter 4) investigates class differences in the use of social networks to receive and provide help during the job search process. The study utilizes an exploratory technique of data analysis, Correspondence Analysis (CA). Results indicate significant differences in the use of social networks across class locations. In particular, white collar employees in working class locations almost exclusively rely on impersonal market channels and can only provide information to other job seekers. Conversely, white collar employees in middle class locations can often obtain employment through social networks. They are also more likely to provide substantial forms of help to other job seekers (referral, lobbying with the employer, help during the

selection process and so on). Factors such as career stage and family background do not alter the class-specific characteristics of network utilization, but only amplify or reduce the effect of class. The results are reviewed in the Conclusions, which also discuss the limitations of the study and suggests possible avenues for future research.

Given the structure of the thesis by publication, some degree of repetition is inevitable — particularly in the sections dealing with Wright’s class theory, the methodology and the research location. In order to reduce repetitions, the details of the data collection process and the operationalizations of the class-relevant variables are described in Appendix A.

Appendix B is a review of previous studies of the post-reform class structure, focusing on the dimensions used to identify class locations. While tangential to the main argument of this thesis, Appendix B clarifies the difference between the theoretically-driven approach to the identification of class locations adopted in this study and the empirical schemes utilized in the previous literature. A collated bibliography reporting all the sources quoted in the study is included at the end of the thesis.

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## ***Introduction to Chapter 2***

This paper investigates the effect of class locations and other individual-level attributes on the distribution of wages and bonuses — the main monetary component of employees' incomes.

Being the first empirical chapter in the thesis, the previous literature on the determinants of inequality in China is reviewed in some detail. The analysis of the literature has two aims. First, it shows how previous studies have primarily focused on individual-level processes. Second, it identifies the limits of structural critiques of the Market Transition Theory. The chapter also devotes considerable space to Wright's class analysis and to his theory of income determination.

In its empirical sections, this paper applies Wright's neo-Marxist class analysis to a case study of income determination in a Chinese New- and High-Technology Development Zone. After controlling for individual endowments with human and social capital, relationally-defined class locations have a positive and significant effect on wages.

The presence of structural determinants of inequality in post-Mao China is generally explained as a legacy of the socialist economy. This study suggests instead that structured social inequality is also linked to the emerging capitalist features of the Chinese economy, and cannot simply be seen as a transitional feature of 'partial' reforms.

## 2. Class location and wage distribution

China's abandonment of the planned system and its integration in the global economy are two crucial events in the history of late capitalism. Unlike what had happened in the former Soviet Union, the phasing out of the planned economy coincided in China with rapid and sustained economic growth, accompanied however by a striking increase in economic inequalities. The relevance and magnitude of these transformation has attracted the attention of a wide number of scholars who have set out to clarify — both empirically and theoretically — the effects of market reforms and economic growth on social stratification and inequality in post-Mao China.

Since the beginning of the 1990s, the debate on inequality and stratification in China has *de facto* become a debate over the Market Transition Theory [MTT]. In its initial formulation (Nee, 1989), the MTT postulates that the emergence of markets in and by itself alters the stratification system of 'transitional' economies in favour of 'direct producers' and to the detriment of 'redistributors' (the old socialist elite). This hypothesis has proved highly controversial, the more so because the MTT was proposed as a general theory of stratification in transitional economies. The ensuing debate has involved not only China specialists but also scholars of East-European transitional economies as well as students of the sociology and economy of stratification in

advanced industrial societies. More than twenty years later there is still little agreement about the validity of Nee's predictions on the fate of former socialist elites (see for example Cao & Nee, 2000; Verhoeven et al., 2005). A general consensus has instead been reached on the fact that social stratification in post-Mao China results from the interaction of processes rooted in the state socialist economy with new, market-based processes of stratification.

In elucidating state-market interactions, the MTT debate seems however to have contributed more to our *ex post* comprehension of the stratification system in socialist societies than to our understanding of inequality under multinational, neoliberal capitalism. This is somehow ironic since, as I argue below, the most criticized aspect of Nee's theory is its neoclassical, individualistic conceptualization of the processes governing the distribution of economic rewards and social positions in a market economy. Starting from this premise, the debate could have been expected to propose an alternative, less simplistic specification of market-based stratification processes. This has however not happened, since the discrepancies between the actual functioning of the Chinese labour market and the purely individualistic model proposed by the MTT have been unanimously attributed to the 'hybrid' institutional features of the Chinese economic system or (for the more teleologically-inclined) to the transitional character of Chinese 'partial' reforms. The emphasis has in both cases been placed on path-dependence: much attention has been devoted to structural determinants of stratification linked to the legacies of the state socialist economy, while little has been said about the structural inequalities generated by the emerging capitalist features of the Chinese economic system. In particular, the effect of social class (according to Marxist and Weberian theories a crucial element of stratification in capitalist societies) on income inequality and stratification has never been investigated.<sup>56</sup>

This paper addresses this gap by investigating the effect of social class on the wage determination process (*class mediation*, in Wright's terminology) through an analysis of wage differentials among white collar employees working for companies located in the Nanjing New and High-Tech-ology Development Zone [NNHTDZ]. Social classes are defined, following the neo-Marxist

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<sup>56</sup> Occupational categories have been in some cases included in the analysis of income determinants. Nevertheless, as I argue in more detail in Section 2.2, the rationale behind their inclusion is linked to their capacity to capture individual skills and levels of productivity, never to their being expression of relationally-defined social classes.



model elaborated by Erik Olin Wright (1997), by their location in the social relations of production.<sup>57</sup> The NNHTDZ is a bounded industrial development zone with a uniform institutional environment, which hosts private and state-invested companies operating in advanced industrial sectors such as biotechnology, electronics, nanotechnology, software and IT. Because of these characteristics, the case study controls for the effect of social class on wage determination net of other structural effects (locational, institutional, sectoral) investigated by the previous literature on income determination in post-Mao China. Furthermore, the case of the NHTDZ provides the opportunity to test the relevance of social class for income determination in one of the most advanced, globalized and capitalistically-oriented sectors of the Chinese economy; a sector which (as demonstrated by favourable state policy) is in several regards seen as a desirable model for the future development of the Chinese industrial economy.

Wright's hypotheses on the linkage between social class and inequality are tested through a series of regression models investigating the effect of social class on the main monetary component of employees' earnings (basic wages plus bonuses). After controlling for the effect of individual levels of human and social capital, the results suggest that a significant part of the variation in monetary earnings can be attributed to relationally-defined class locations. Although education has a positive and significant effect on wages, its effect attenuates after controlling for the presence of structural class effects. These results must be taken with some caution given the small sample size ( $N = 94$ ) and the contextual specificities of the study location. The results, however, suggest that the effect of social class should not be overlooked. The analysis of state-based determinants of inequality should be balanced by an increasing attention to capitalist-based, structural processes.

The remainder of the paper is organized as follows. Section 2.1 discusses previous structural critiques of the MTT, arguing that they inevitably trace back structural determinants of inequality to the state socialist system. Section 2.2 discusses the role assigned to social class as a determinant of inequality in different class-analytical tradition. Section 2.3 reviews previous evidence on the relevance of occupation for income determination in post-Mao China, and points out

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<sup>57</sup> In Wright's relational class analysis, employees in similar occupational groups can belong to different class locations because of their different position in relations of exploitation and domination (see Section 1.2.3 in the Introduction). For this reason, although all the sampled employees were engaged in white-collar occupations, they can still belong to different class locations.

that previous approaches consider attribute-based selection as the key stratification process in a market system. Sections 2.4 introduces the main elements of Wright's class analysis and of his theory of income determination, which provide the theoretical foundation for the empirical investigations presented in this paper. The remaining sections present the results of the analysis, draw some tentative conclusions and provide indications for future research.

## **2.1. Structural critiques of the Market Transition Theory**

The MTT shares with human capital theory (Becker, 1964; Mincer, 1958) a view of competitive labour markets in which economic rewards and placement in the socioeconomic order are directly linked to individual productivity, and with status attainment models (Blau & Duncan, 1967; Sewell & Hauser, 1975) an overarching concern with individual-level attributes. The neo-classical assumptions behind the MTT are clearly evident in Nee's three theses about the 'central processes in the shift from hierarchies to markets' (Nee, 1989: 666-667 ). The 'market incentive' thesis postulates that the development of labour markets and agricultural markets increasingly links rewards to productivity; therefore returns to education (a key component of human capital) can be expected to increase as market reforms progress. At the same time, as more transactions take place in the market, control of state redistributors over economic surplus is bound to decline. Direct producers can therefore benefit from better terms of exchange for their products or labour power ('market power' thesis). Finally, individuals have more chances to find avenues to economic attainment outside the boundaries of the state, and entrepreneurship in particular becomes a viable alternative to bureaucratic advancement ('market opportunity' thesis). The binding idea behind the three theses is that markets reward individual productivity, skills and entrepreneurship; they have therefore an inherently equalizing effect in state socialist societies.

The individualistic bias of the theory also underpins the models used in empirical research. Since the outset of the debate, the three theses of MTT have been formalized in hypotheses concerning the changing rates of return to individual endowments with human and political capital.

For proponents of the theory, returns to human capital (in terms of both income and social mobility) are expected to increase with the advancement of market reforms, while returns to political capital are expected to decrease. Others have argued that the privileges linked to political capital may have ‘persisted’ after reforms, or that political capital could have been ‘converted’ into new, market-based sources of advantage (Bian & Logan, 1996; Róna-Tas, 1994; Zhou, 2000). Theory-testing has thus focused on assessing whether the income advantage of the socialist elite over other social groups had widened or reduced in the course of reforms, and whether its preferential path of access to high-rewarding or prestigious careers had been maintained or eroded. For advocates and critics of the MTT alike, human capital is measured through standard proxies for education (years of schooling, higher degree obtained) and skills acquired on the job (work experience, age). Political capital has instead generally been equated to membership in the Communist Party, cadre status, or working for the state sector.

It has, however, been argued that changing returns to human capital and political capital do not provide a valid test of the MTT. These critiques address a more fundamental flaw in the MTT: its exclusive focus on individual-level stratification processes. A first strand of literature has pointed out that post-reform labour markets, far from being the homogeneous neoclassical markets postulated by the MTT, are segmented along multiple axes. Quite interestingly, the ‘market segmentation’ argument has been raised not only by authors contributing to the market transition debate from a sociological perspective, but also by economists concerned with the dynamics of rising inequalities in China. Noting that regional rates of growth have widely varied across China, several studies focused on spatial segmentation, detecting the presence of contextual effects in the income determination process (Hauser & Xie, 2005; Knight & Song, 2003; Xie & Hannum, 1996). Segmentation in returns to human and political capital between the state and non-state sector, between the core and peripheral economic sector and between the rural and urban sector has also been detected (Bian & Zhang, 2002; Fleisher & Wang, 2004; H. Z. Li, 2003; Peng, 1992; Zang, 2002; Zhang et al., 2005; Zhao & Zhou, 2002). Segmentation can be also linked to the path of entry in the private sector — voluntary mobility versus forced layoff from state-owned enterprises (X. Wu, 2010; X. G. Wu & Xie, 2003).

Other approaches have emphasized the effects of the hybrid Chinese property-rights regime on organizational and institutional dynamics. Walder (1992) has for instance developed the lineaments of an ‘institutional theory of stratification anchored in a conception of property rights’ to explain how segmentation according to sector and rank of the work-unit derives from different mechanisms from those hypothesized for market economies. Under the hybrid Chinese system, wage and nonwage forms of compensation depend on the resources bureaucratically allocated to work-units and to their willingness to redistribute them to employees. In a later paper, Walder (1996) has identified other institutional factor that can affect the operation of markets, including the distribution of control over assets, entry barriers, the political process of privatization and local growth rates. Research has consequently concentrated on forms of segmentation linked to the location of organizations in the administrative hierarchy and to their degree of autonomy from the state (Lin & Bian, 1991; X. Wu, 2002; Zhou, 2000). Other studies have confirmed that the level of compensation can be linked to the level of profits generated by the firm or the *danwei* (Coady & Wang, 2000; Knight & Li, 2005; Xie & Wu, 2008), or to the presence of institutional barriers to labour mobility — in particular the *hukou* system (Fan et al., 2009; Fleisher & Wang, 2004).

Segmentation thus adds a structural dimension to inequality and stratification: even as market reforms progress, rates of return to individual levels of human and political capital can be expected to vary according to sector, ownership, location and levels of retained profits in the work-unit or in the firm.<sup>58</sup>

A second strand of critiques of the neoclassical core of the MTT builds upon the concept of ‘embeddedness’ as formulated by Granovetter (Granovetter, 1985). Authors writing from this perspective argue that Chinese labour markets are embedded in networks of social relationships and do not correspond to the atomized view implicit in Nee’s approach (Bian, 1997; Bian, 2002; Bian & Ang, 1997; Cheung & Gui, 2006; Johnston & Alvarez, 2008; Knight & Yueh, 2008; Zang, 2003).

<sup>58</sup> These ‘segmentation critiques’ closely echo themes and arguments raised in the 1970s and 1980s by proponents of structural approaches to stratification in response to the neoclassical foundations of human capital theory and to the functionalist perspective implicit in status attainment models (Colclough & Horan, 1983; Horan, 1978; Knottnerus, 1987). A clear link also exists to previous application of theories of labour market segmentation and dual economy theories in stratification research (Beck & Tolbert, 1980). The presence of geographical differences, due to local variations in the degree of marketization, had been already postulated by Nee in his 1989 article. Observations about other forms of segmentation have been in part incorporated in Nee’s subsequent revisions of the MTT, but attributed to the ‘partial’ nature of Chinese market reforms (see for example Nee, 1991).

This growing stream of research has shed light on the relation between social networks and job market outcomes in China, showing how patterns of influence rooted in the state ensure a continued relevance for direct or bridged strong network ties — a result at odds with the ‘strength of weak ties’ thesis advanced by Granovetter. Research on job-search networks ultimately suggests that individual measures of political capital may miss the presence of mediated linkages to the redistributive system.

These streams of literature have contributed much to our understanding of the stratification mechanisms in the socialist system. Nonetheless, these critiques have paradoxically not led to a rebuttal of Nee’s purely individualistic view of market-based stratification processes. Segmentation and embeddedness are in fact uniformly ascribed to the *hybrid* or *transitional* character of the Chinese economy; structural stratification processes are never attributed to the emerging *capitalist* features of the Chinese economic system. Structural critiques have replaced the individualistic bias of the MTT, built on the ‘old’ mainstream (neo-classical) conceptualization of the market with similarly individualistic concepts derived from neo-institutional economics and new economic sociology. After controlling for the differences generated by segmentation and embeddedness rooted in social networks and in the institutional legacy of the socialist system, stratification is still conceptualized in terms of returns to individual endowments with human and political capital.<sup>59</sup> In this view, the emergence of markets has set in place a sorting mechanism that (in a functionalist or neutral way) allocates people to earning and occupational groups according to their individual attributes, although the extent to which attributes are rewarded depends on contextual characteristics.

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<sup>59</sup> The same can be said of a third set of critiques moved to Nee’s analysis of the equalizing effect of markets. Some authors have argued that changes in the Chinese stratification process (in particular, increasing rewards to human capital) are not only a function of marketization, but also of structural changes brought about by rapid economic growth and widespread industrialization in a preeminently rural, pre-modern society. Even in this case, however, the theories mobilized to explain the relations between structural change brought about by economic growth and inequality do not move beyond the boundaries of mainstream economics. Kuznet’s inverted-U hypothesis has, for example, found ample currency with scholars of Chinese stratification (see for example Nee, 1991; Walder, 1996).

## 2.2. Social class as a structural determinant of inequality

Is this all that markets contribute to the stratification process? According to Marxist and Weberian approaches to stratification, this is certainly not the case since markets produce deeper qualitative changes in the stratification system. These changes are inherently tied to the concept of social class.<sup>60</sup> For Weberian approaches, the institution of commodity and labour markets sets the condition for the emergence of social classes, as opposed to status groups and political parties, as determinants of social stratification. Classes are, for Weber, only 'represented under conditions of the commodity and labour markets' and class situation is 'ultimately market situation' (Weber, 1968: 181-2). Class is equated to the market capacity of individuals, in turn determined by their control over economic resources. Market capacity is thus a fundamental determinant of inequality in life-chances. For Marxist approaches, while classes exist in non-market societies, the emergence of a 'free' labour market (i.e., the fact that all individuals have full property rights in their unit of labour power) is crucial to the development of a specific form of class relations, capitalist class relations. As in the Weberian case, social classes are ultimately determined by the differential control individuals have over the means of production. In the Marxist approach, however, classes are not only linked to the market capacity of individuals but also to their location within the social relations of production. Hence, control over resources does not only determine differential control over income (life-chances), but also the position of individuals in relations of exploitation and domination.

Although the Weberian and the Marxist traditions hypothesize different causal mechanisms linking social class and inequality, in both cases the unequal distribution of ownership over economic resources is thought to affect inequality through the presence of structural disparities between social classes. Inequality in incomes and material conditions are seen not simply as the result of individual-level processes, but as a systemic feature based on the inherent inequality of the class locations generated by the distribution of rights and powers over productive assets and by the conditions under which resources can be exchanged. In the Weberian tradition, the advantages accruing to individuals who have preferential access to economic resources (including the private

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<sup>60</sup> The following discussion of the conceptualization of social class in the Weberian and Marxist tradition of class analysis is based on Wright (2005a; 2009).

ownership of capital) are assumed to depend upon the exclusion of others from the same resources.<sup>61</sup> In the Marxist tradition, the dominant classes are thought to gain their material advantages through the appropriation of the fruits of the labour of the dominated classes.

It can be easily argued that reforms have created in China the conditions for the emergence of social classes (in the Weberian sense) or for the development of capitalist class relations (in the Marxist sense). Two aspects of reforms are crucial in this regard. First is the liberalization of private economic activity through the reintroduction of private ownership and market forms of exchange, to which can be added the gradual marketization of the state-owned economic sector. Second is the dismantling of the state job allocation system, a system associated with widespread life-long job tenure. Institutional reforms have thus resulted in the redistribution of ownership and control over valuable assets: physical and financial capital in the first place, but also human capital in the form of skills, credentials and expertise. Reforms have at the same time reallocated the rights to returns on the productive deployment of these resources. Whereas prior to reforms markets for labour and commodities were virtually abolished, individuals now have access to a much wider range of options for selling their skills and labour power to an employer of their choice, or for deploying the assets in their possession in the production of marketable commodities. The reinstatement of private property has reintroduced the distinction between owners and non-owners of the means of production.

Whether social class is defined as market capacity or as the location of individuals within the social relations of production, the conditions for an increased salience of social class in the stratification process are certainly present in China. The often argued-for coexistence of capitalist elements and legacies of the state socialist system in post-Mao China can be conceptualized in terms of social class. In terms of Weberian class analysis, this implies that social class interacts with non-class forms of stratification (because of the lack of markets under state socialism, there could not be social classes). In terms of Marxist class analysis, this would instead imply that capitalist class relations coexist in China with class relations rooted in the statist mode of production. To use the terminology proposed by Wright (1994: Chapter 6; 2005b), China would be conceptualized as

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<sup>61</sup> Neo-Weberian authors have in particular stressed the importance of 'social closure' (Murphy, 1988; Parkin, 1979).

a social formation in which the statist and the capitalist mode of production interpenetrate, thus producing complexity in class relations.

Question of great theoretical and empirical relevance concern therefore the role of class in the post-reform stratification system. And yet, class never appears among the structural determinant of inequality and stratification postulated by critics of the MTT. As I argue in the following section, the only way in which social class has been included in analyses of income determination in China has been through occupational proxies.

### **2.3. Gradational class approaches in previous research on China**

Within class analysis, a broad distinction can be drawn between traditions based on a *gradational* concept of class and traditions based on a *relational* concept of class (Wright, 2005a; Wright, 2005b). The distinction between relational and gradational concepts of class was first proposed by Ossowski (1998) and later adopted by Wright (see for example Wright, 1985: 34-35). In relational approaches, social classes are defined through their social relations to other classes. In gradational approaches, social classes differ for some directly or indirectly measurable attribute (such as income, occupation or prestige). The relations between classes is a relative ordering relation (high versus low social positions), not a relation between classes.<sup>62</sup>

In the Chinese context, previous research interested in understanding how membership in a specific social group affects life-chances and economic returns to individual endowments has almost exclusively relied on gradational approaches, and has implicitly or explicitly adopted an attribute-based view of the relation between class and individual outcomes. In general, individuals have been divided according to simple gradational indicators (most typically income or education) or to synthetic gradational indicators (generally a combination of occupation and education).

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<sup>62</sup> See Introduction, pp. 18-19 for a more comprehensive discussion of the relational character of Marxist class analysis.



Nee and Cao (2002) used a World Bank nationally representative survey to estimate income inequality between occupational categories. Categories were defined in a strictly gradational fashion on the basis of job titles. Their results showed significant income differences between manual and non-manual workers, although the magnitude of these differences was lower than in the West. Peng (1992) found that occupation had a significant effect on wages in the rural public sector and in the private sector, but only a marginal effect in the urban state sector. Zhao and Zhou (2002) included a four-categories occupational classification among the explanatory variables of their income determination model. Professional and managerial occupations enjoyed significantly higher incomes, but returns to education (measured as years of schooling) decreased for these occupations if compared to workers.

Knight and Li (2005) used a composite gradational indicator (individual incomes and skill levels) to investigate whether the effect of firm profits on earning capacity was homogeneous across different groups of workers. Their results showed that the effects of firm losses were felt hardest by unskilled workers. Comparing data from the Urban Household Income Survey for 1988 and 1995, Gustafsson and Li (2001) examined the effect of education on earnings for different income groups (a simple gradational indicator). The study found that the effect of education on earnings is larger among people at the bottom of the earnings curve than for people at the top. Fleisher and Wang (2004) divided workers in two simple gradational groups (skilled and non-skilled occupations) and found that the wage gap (i.e. the difference between the marginal product of labour and the salary) was lower for workers and higher for people in TAS occupations (technical, administrative and staff workers).

Gustafsson and Sai (2009) studied the effect of state workers' rank (their level in the administrative hierarchy of state work units, another instance of simple gradational indicator) on incomes. The study concluded that a person's labour market category had a significant effect on income independently from education and other individual characteristics. Knight and Song (2003) examined changes in the urban wage structure during the period of labour market reforms comparing data from two national household surveys held in 1988 and 1995. The authors estimated the determinants of wage inequality using three sets of explanatory variables representing

three effects: discrimination (gender, ethnic status and Party membership); labour market segmentation (province and sector); and human capital (age, education and skill-based occupational groupings). This study also used a simple gradational approach (occupational codes) to identify workers categories. The authors confirmed that the effect of education was not homogeneous across different sectors of the labour market. Furthermore, the study found a significant increase in the effect of occupation: all other variables being held constant, the distance between the wages of common workers and middle-class workers (cadres, technicians and professionals) increased from five to 17 per cent in the period considered.

Bian and Logan (1996) is one of the few studies to include, although to a limited extent, a relational class concept in the analysis of income determination. The study was firmly grounded within the MTT research agenda, since its main concern was to understand whether political-bureaucratic mechanisms of income distribution had maintained their relevance or lost ground to market-centred mechanisms between 1978 and 1993. Alongside standard human capital variables (age and education), political capital variables (Party membership) and organizational segmentation variables (rank of the work unit), the authors defined two indicators of 'occupational status' that aimed to capture 'how occupation links people to the main mechanism of resource redistribution: the socialist redistributive system and the market system' (Bian & Logan, 1996: 748). They used a detailed list of occupational codings to allocate individual jobs to one of three categories: (1) jobs with high 'redistributive power' (i.e. jobs in the state sector whose holders were involved in the decision-making process of their work-unit); (b) jobs with high 'market connectedness' (i.e. jobs whose owners could benefit from the expansion of markets); (c) jobs that had neither.<sup>63</sup> The study suggested that structural, class-based determinants of income inequality operated independently from individual-level attributes. The income effect of redistributive power significantly increased in relevance in fifteen years. At the same time workers with high market connectedness, who had no significant advantage over common workers in 1978, enjoyed in 1993 the same advantages of workers with high redistributive power.

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<sup>63</sup> Questions could be raised (as also recognized by the authors) concerning the capacity of a purely occupational (i.e., gradational) coding to capture the underlying relational dimensions of the class structure. In particular, the claim made by the authors (p. 748) that these purely occupational indicators correspond to the 'owner-worker dichotomy emphasized in Marxist analyses of market societies' seems overstated. Still, the occupational categories have a relational character since they are built according to a theoretical conceptualization of the class-relevant mechanisms in the state and the market sector.

These studies suggest that social class, even when defined in a gradational fashion, is an important determinant of stratification. Class operates independently from individual endowments with human and political capital, and introduces a structural dimension of stratification that is not attributable to labour market segmentation. In view of these results, it seems even more important to investigate the effect of class on stratification by utilizing an explicitly relational conceptualization of social class. This paper contributes a relational class perspective to the literature on post-Mao China by applying Wright's neo-Marxist class analysis to study the effect of class on the income determination process among white collar employees in the Nanjing New- and High-Tech-Technology Development Zone. The main elements of Wright's class analysis and of his class theory of income determination are introduced in the following section.

#### **2.4. Wright's neo-Marxist class analysis**

Two relational class models have found widespread application in empirical research: Wright's neo-Marxist class model (Wright, 1997); and Goldthorpe's class model, often referred to as neo-Weberian (Erickson & Goldthorpe, 1992; Goldthorpe, 1987). I believe that Wright's class model is to be preferred in the study of post-Mao China, because it provides a coherent theoretical framework for understanding the complexities of the post-reform class structure in which elements of the statist and of the capitalist modes of production coexists.

Wright's efforts have primarily concentrated on reformulating the theoretical foundations of the structural aspects of Marxist class analysis. The building block for Wright's class analysis is the concept of 'social relations of production'. According to Wright, while this concept is crucial to Marxist class analysis, there is very little agreement among Marxist theorists about the meaning of the term. Wright (2005b: 9-10) adopts the following definition: social relations of production are the sum total of the rights and powers people who participate in production have over the resources used in production, and over the result of their use.

The concept of social relations of production is directly linked to the Marxist definition of class relations. Class relations are in fact a specific form of social relations of production, characterized by the unequal distribution of rights and powers over productive resources. Class divisions, and the ensuing antagonism between the material interests of different classes, derive from the linkage between social relations of production and exploitation (i.e., the extraction and appropriation of the efforts of others).<sup>64</sup> This linkage is not specific to capitalist societies, but capitalist class relations differ from class relations in other modes of production because of the way in which property rights over labour and capital are distributed. In capitalist class relations, workers are separated from the means of production (capital) but have full ownership of their labour power and are 'free' to sell their labour power in exchange for a wage (Wright, 1997: 9-19).

The basic Marxist map of capitalist class relations generates three class locations: the capitalist class (which includes owners of the means of production); the working class (whose incumbents only own labour power); and the petty-bourgeoisie (individuals who own the means of production but do not hire others) (Wright, 1997: 19). Two of these class locations (capitalists and workers) are *fundamental* class locations: because of the specific form of exploitation under the capitalist mode of production, the material interests of workers and capitalists are directly antagonistic.

Wright argues that, while the basic class map of capitalist class relations is an appropriate tool to investigate macro-structural dynamics of social change, its usefulness for micro-level analysis is limited since it does not capture relevant distinctions within employee class locations (Wright, 1989: 275; Wright, 1997: 19). Although in capitalist societies the majority of the population is separated from the means of production, not all the people who sell their labour power and work for a wage appear to belong to the working class. This is particularly true for the wide range of technical, managerial and professional occupations that are generally referred to as the middle class. Wright has therefore devoted much of his efforts to addressing the empirical and theoretical problems that the middle class poses to Marxist class analysis. His reformulation of the Marxist

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<sup>64</sup> Exploitation describes the process through which the unequal distribution of rights and powers over productive resources generates inequalities in income. Wright defines exploitation through three conditions linking the material interests of actors within economic relations; see Wright (1997: 9-13).

concept of class structure has aimed at giving scientific precision to the term ‘middle class’, by generating ‘a class concept for concrete analysis which adequately maps these [middle class] locations while at the same time preserving the general assumptions and framework of Marxist class analysis’ (Wright, 1989).

After early attempts at formulating a Marxist concept of the middle class in terms of ‘contradictory class locations’ (Wright, 1979) and ‘multiple exploitation’ (Wright, 1985), Wright produced a map of locations within capitalist class relations based on three dimensions: ownership, authority and skills/expertise (Wright, 1997).<sup>65</sup> The twelve-locations version of Wright’s map of capitalist class relations is presented in Figure 2.1.<sup>66</sup>

The rationale for including ownership of the means of production as a dimension of class relations lies, as discussed above, on the relationship between property relations and exploitation. In the twelve-locations map, Wright distinguishes three propertied locations on the basis of the number of employees: the *petty-bourgeoisie* includes self-employed people with no employees; *small employers* have few employees; *capitalists* employ a large number of people.

Authority is considered a relevant dimension for the identification of class locations for two reasons. First, authority is linked to the domination dimension of capitalist class relations.<sup>67</sup> When managers and supervisors engage in practices of domination within production, they are exercising delegated capitalist powers. They are however also capitalistically exploited, since they are excluded from the ownership of means of production. This duality places managers and supervisors in what Wright calls *contradictory locations within class relations*: they are simultaneously in

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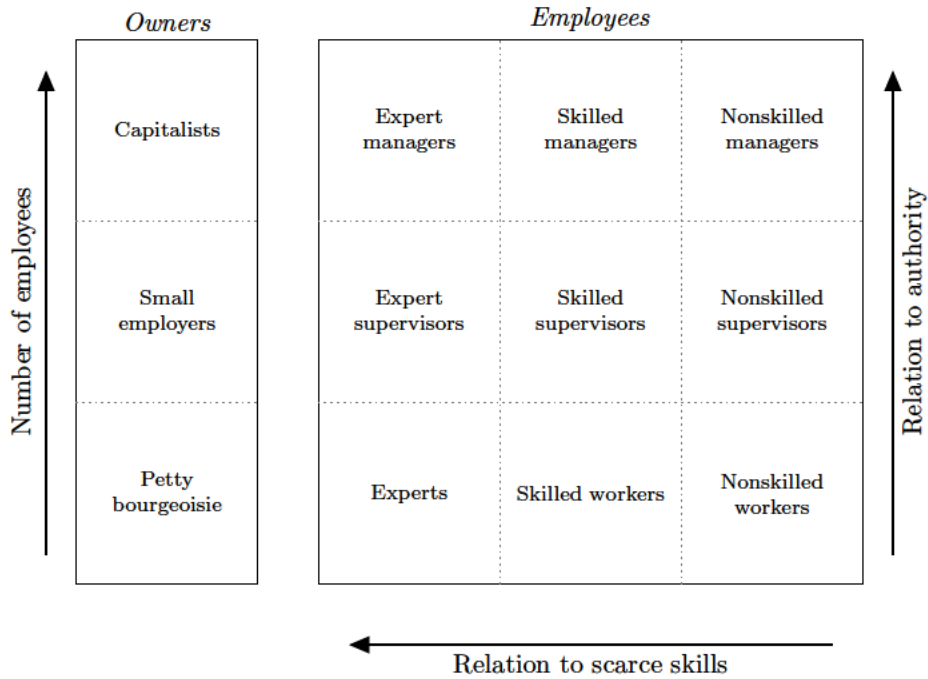
<sup>65</sup> Wright has later proposed a further general frame work for the conceptualization of class, based on the notions of complexities in class locations and complexity in class relations (Wright, 1989: 323-331; Wright, 2005b). The concept of complexity in class relations (the idea that, in a given social formation, class relations pertaining to different modes of production can coexist and affect each other through a mechanism called ‘mediation’) is particularly relevant to the case of post-Mao China.

<sup>66</sup> For a detailed discussion of Wright’s approaches to the identification of the middle class and of the dimensions underlying the twelve-locations map, see Sections 1.2.4 and 1.2.5 in the Introduction.

<sup>67</sup> Domination is defined by Wright (2005b: 25) as ‘the social relations within which one person’s activities are directed and controlled by another’. Exploitation and domination and closely connected and, taken together, they define the core features of the structured pattern of social interactions within capitalist class relations.

FIGURE 2.1

Wright's twelve-locations map of capitalist class relations



SOURCE: Wright (1997)

the working class and in the capitalist class. Second, because of the high degree of discretion and initiative characterising managerial positions, monitoring is costly and repressive forms of control can hinder creativity. Managers and supervisors receive therefore a 'loyalty rent' in the form of higher earnings and access to clear career paths within the internal labour market. For this reason, managers and supervisors take part in the redistribution of surplus and are located in what Wright calls a *privileged appropriation location within exploitative relations*. Along the authority dimension, Wright differentiates between *managers* proper, who are involved in organizational decision-making; and *supervisors*, who have power over subordinates but have no decision-making power of their own.

Employees with skills/expertise are, like those with authority, also placed in privileged appropriation locations within exploitation relations. First, this is because of the difficulties to monitor employees who retain a significant degree of control over their labour process. Second, skills and expertise can be scarce in the labour market because several mechanisms restrict their supply. The (partially artificial) scarcity of skills and expertise generates a ‘skill rent’ component in the wage of experts and skilled workers. Along the skills/expertise dimension, Wright differentiates between *experts*, who are engaged in occupations that generally require the possession of advanced academic degrees; and *skilled workers*, who are employed in occupations that require a lower level of training.<sup>68</sup>

The different combinations of authority and skills/expertise identify nine distinct locations within the employee population, ranging from *nonskilled workers* (who possess no skills and exercise no authority) to *expert managers* (who exercise actual managerial authority and possess a high degree of expertise). Wright’s twelve-locations map of the capitalist class structure provides the foundations for the analyses performed in this study. The employee locations identified in the map have however not been used in this highly-disaggregate form. In order to investigate the effect of class on incomes, a dichotomous class category was built by combining the employee class locations in two aggregate class categories termed *middle class* and *working class*. The construction of aggregate class categories for empirical analysis is a theoretically legitimate procedure in Wright’s class analysis: the locations identified in the map are in fact not ‘classes’, but locations-within-class-relations which can be combined according to the aims of the investigation.<sup>69</sup> In order to explain how the aggregate class categories were defined, the main elements of Wright’s theory of income determination need to be discussed.

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<sup>68</sup> In this thesis, the criteria used to locate of employees on the skills/expertise dimension differ from those suggested by Wright. The operationalization of the skills/authority dimension is explained in Appendix A.

<sup>69</sup> On this point, see Section 1.2.6 in the Introduction.

#### 2.4.1. Class and income determination

The central tenet of Wright's theory of income determination is that, within a given social structure, 'the income determination process differs from one location to another' (Wright, 1979: 62-67). This is more obvious when fundamental class locations are contrasted to each other: capitalists acquire income through the appropriation of surplus labour (exploitation), while workers acquire their income from the sale of labour power. Even among wage employees, however, there are crucial differences: for working class locations, wages tend to be equalized to the value of labour power. For employees in contradictory class locations, wages are kept above the value of labour power by a mechanism of social control (i.e., a mechanism whose aim is to induce workers to perform labour in excess of the cost of their labour power). Although other elements contribute to the determination of income (exchange relations, technical relations, individual characteristics such as education, gender, class background and so on), the way in which these elements influence income is therefore ultimately *mediated* by the location of an individual in class relations. Otherwise said, the effect of, say, gender or education is not homogeneous across class locations.

The part of the wage which is above or below the value of labour power is termed by Wright the *privilege-discrimination component* (Wright, 1979: 80-86). Within the working class, it can be expected that this component will be close to zero or even negative. Conversely, the privilege-discrimination component can be expected to be positive for employees located in contradictory class locations and in privileged appropriation locations (locations characterized by a significant degree of authority and/or expertise). As mentioned in the preceding section, the reason is primarily due to monitoring difficulties: given that, in the case of employees who exercise delegated capitalist authority or employees who retain control over their labour process, monitoring is costly to implement and sanctions can be counterproductive, the mechanism of social control is based on the provision of various forms of incentives — among them, the concession of a positive privilege-discrimination wage component.



#### 2.4.2. The aggregate class categories used in the study

This study intends to investigate the presence of class mediation on the income determination process by evaluating the effect of class location on the wages received by middle class employees in the NNHTDZ, after controlling for the individual-level factors that were found to significantly affect wages in previous research (education, work experience, gender, class background, the use of social networks in the job search process). The study will only concentrate on the overall effect of class location, not on the analysis of how the privilege-discrimination component varies across disaggregate class locations.

For this reason, the class map on which this study is based only includes two aggregate class categories. The first (*working class*) includes the class locations for which the privilege-discrimination component is supposed to be equal to zero. The second (*middle class*) includes all the locations for which the privilege-discrimination component is supposed to be positive. Since, according to Wright, the operationalization of the measures of class locations is inherently affected by some degree of arbitrariness or ambiguity (see Section 1.2.6 in the Introduction), the working class category is defined so as to also include those employees locations that are ambiguously separated from the working class on one and only one of the two theoretically-relevant dimensions (authority and skills/expertise). Thus, the working class category includes nonskilled workers, skilled workers and nonskilled supervisors (see Figure 2.2). This categorization leads to a relatively conservative definition of the middle class. An identical scheme has been used by Wright in Chapter 15 of *Class Counts* (1997).<sup>70</sup>

#### 2.5. Background, data and variables

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<sup>70</sup> This scheme is referred as Scheme A in the Introduction and in Appendix A.

The empirical part of this study focuses on a micro-level aspect of class analysis: the linkage between social class and wage inequality. The reform of the wage system has been an important component of China's post-Mao labour reforms. Prior to reforms, wages in China were administratively determined. A system of standardized wage scales modelled on the Soviet Union was introduced in 1956. Wages scales were linked to the rank system, and they determined the wage level for workers, professionals and cadres with minor sectoral or local variations (Korzec & Whyte, 1981). Progression along wage and rank scales was closely tied to seniority as well as to political credentials. During the Cultural Revolution, forms of earnings based on productivity or piece rates were abolished, thus the basic wage became the only component of an employees' earnings.

Reforms of the wage system started in 1980, with the reintroduction of bonuses and piece rates. The total wage in state-owned enterprises was then articulated in three major components: the basic wage, which was still administratively set; a component linked to status and seniority; and the floating wage, which included bonuses and was determined at the enterprise level. As companies were given the right to retain their profits and to decide how to distribute them, they had the possibility to independently set the levels of bonuses and subsidies. Walder (1987) has however demonstrated that the distribution of bonuses in state-owned enterprises was linked more to political reasons than to economic ones. The distribution of bonuses among workers, cadres and managers in state-owned enterprises was thus fairly egalitarian, rather than related to performance. By the mid-1990s, reforms of the wage system had further deepened, and a major revision of the basic wage in the state sector was promulgated in 1994. In 1996 a major wave of lay-offs started in the state-owned sector. Consequently, market mechanisms became relevant not only for new entrants in the labour market but also for laid-off workers. As labour markets took off in earnest, the determination of wages and bonuses was further decentralized. As far as private enterprises and joint-ventures are concerned, there is no administratively-set component in the total employee wage — the only restriction being the basic wage set by the 2008 amendment of the Labour Law.

Being the most relevant component of an employee's total income, and being largely set through market mechanisms, basic wages and bonuses represent a valid starting point for studying

the relation between social class and income inequality. Basic wages and bonuses have in fact been identified as the most important components of the increase in income inequality (Gustafsson & Li, 2001). For these reasons, this paper will only focus on basic wages and bonuses.

### **2.5.1. The study location**

This study is based on an original dataset collected by the author in the Nanjing New- and High-Technology Development Zone [NNHTDZ] between 2008 and 2009. Nanjing, situated about 300km inland from Shanghai, is the capital of Jiangsu province and belongs to the affluent Yangtze River Delta [YRD] region.<sup>71</sup> The NNHTDZ is one of several industrial development zones located in Nanjing. The NNHTDZ was jointly established by Jiangsu province and Nanjing municipality in 1992. One year later, it became the first development zone in southern Jiangsu (Su'nan) to obtain national-level recognition. Thanks to its focus on research- and technology-intensive enterprises, the NNHTDZ is at the core of Nanjing's industrial upgrading strategy (Cucco, 2008).

Because of its sectoral specificities, demand for skilled labour in the NNHTDZ is high.<sup>72</sup> The local labour market is very competitive, with high turnover rates and a prevalence of impersonal channels of recruitment. Competition for skilled labour is strong not only within Nanjing, but throughout the Yangtze River Delta region since the area (which includes Shanghai and the most advanced areas of Zhejiang Province) hosts a large number of high-technology industrial parks. Attempts made by the NNHTDZ administration to territorialize skilled labour within the zone have proved unsuccessful. Furthermore in the NNHTDZ, as in other high-technology zones throughout China (Fan et al., 2009), restrictions on labour mobility on the basis of residence permits (*hukou*) have in practice been eased. As far as the functioning of the labour market is

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<sup>71</sup> The Yangtze River Delta region includes southern Jiangsu, northern Zhejiang, and Shanghai's metropolitan area.

<sup>72</sup> The type of skills in high demand in the NNHTDZ went far beyond the possession of a university education. Given that Nanjing is one of the major university poles in China, and provided that several universities had set up their campuses within the NNHTDZ, there was no scarcity of university graduates within close reach of the NNHTDZ. The university system was however unanimously criticized by the managers I interviewed in the course of the fieldwork for its inability to prepare students for smooth integration in a corporate environment. It was not a university education per se that rendered a potential employee valuable in the eyes of recruiters, but a combination of formal education and 'soft' skills acquired through previous experience in a corporate environment.

concerned, statist logics are clearly subordinated to systemic capitalist constraints. Given the high turnover rate for skilled labour and the generally high level of job-specific competences required in the high-tech sector, retention of employees was an overarching concern for companies.<sup>73</sup>

### **2.5.2. Data, sampling and research design**

The study adopted a mixed-methods sequential exploratory design (an Instrument Development Model) articulated in two sequential phases (Creswell & Plano Clark, 2007). In the first phase of the fieldwork, qualitative data were collected through direct observation, documentary research and face-to-face interviews. The information gathered in the first phase of the study was used to design items to be included in the survey instrument and, more importantly, to develop adequate operationalization of the authority and skill/expertise variables (see Appendix A).

In the second phase of the study, quantitative data were collected from a clustered random sample of white collar employees working for ten randomly selected companies located within the NNHTDZ. In each company, questionnaires were distributed to ten-to-fifteen employees. A total of 125 questionnaires were distributed, of which 99 were returned; listwise deletion was used to discard questionnaires in which key variables were missing, thus leaving 97 complete cases. The features of the sampling design are accounted for in the following analyses through the use of probability weights and clustered robust standard errors.<sup>74</sup>

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<sup>73</sup> The interviewed HR managers almost unanimously supported this point, the only exception being the managers of companies operating in very specialized niches for which there was no local competition. The problem of retention of skilled and experienced employees (particularly middle managers) was a frequent topic of discussions within the Human Resources Working Group of the EUCCC during my attendance. The NNHTDZ administrations is acutely aware of the situation, and is trying to respond to pressures emanating from the companies through a series of programs aimed at making the NNHTDZ a desirable living environment for skilled managers and professionals. The NNHTDZ is also trying to strengthen linkages between universities located within the zone and companies registered in the NNHTDZ. On both points, see Cucco (Cucco, 2008).

<sup>74</sup> A list of interviews and basic data about the sampled companies are provided in Appendix A. Documentary data were collected from official statistical publications, local newspapers and documents provided by the NNHTDZ administration. During my stay in Nanjing, I also worked for three months as a freelance consultant for the Human Resources department of the NNHTDZ Development Corporation (part of the zone administration) and I regularly participated for six months in the activities of various Working Groups of the European Union Chamber of Commerce in China [EUCCC], Nanjing Chapter.

### 2.5.3. Variables

**Yearly wage:** this is calculated as the yearly sum of basic wages and bonuses (in RMB). *Yearly wage* therefore excludes non-monetary forms of compensation (in-kind subsidies, welfare, services and so on). In regression analysis, the natural logarithm of yearly wages is used as the dependent variable.

**Gender:** gender is a dummy variable included for control reasons. *Gender* is coded as one for male and zero for female (base category).

**Years of Education:** data were collected on the highest educational degree obtained by respondents. *Years of education* is constructed by calculating the standard number of years of education required to obtain the degree in the Chinese educational system.

**Work experience:** work experience is generally included in models of income determination as a proxy for human capital acquired on the job. *Work experience* is calculated as current age minus years of education.

**High-ranking university:** university ranking has never been included in previous analyses of income determination. The interviews with human resource managers showed however that having graduated from a high-ranking university was considered an important element when evaluating job applicants. The possibility that university ranking affects wages can be interpreted in one of two ways. Graduating from a high-ranking universities could have an effect on wages because of the better quality of education, which would in turn increase productivity — an interpretation in line with human capital theory. Previous studies seem however to support the presence of strong signalling effects in the functioning of educational credentials in China (F. Li et al., 2009). Being admitted to a prestigious institution could be seen as a sign of higher intellectual capacities or dedication, and graduating from a prestigious institution could be associated to desirable forms of socialization. It would therefore be expected that the variable has a positive and significant effect on the level of wages. For this study, information was collected about the institution in which

respondents obtained their highest degree. *High-ranking university* is a dummy variable coded as one if the university was ranked among the top twenty institutions in the NetBIG Chinese University Ranking 2008, and zero otherwise.<sup>75</sup>

**Job help:** this variable accounts for the relevance of social capital in the job market. Respondents were asked to indicate whether they had received any assistance in obtaining their current job. They were then asked to report all the forms of assistance they had received, which was not only limited to active lobbying but also to referral, information, help with the application process and so on. *Job help* is a dummy variable coded as one if the respondent obtained significant forms of help (including referral, lobbying in his/her favour with the employer or assistance during the selection process) and zero otherwise (base category).

**Parent(s) with college degree:** this variable intends to capture the effect of the pooled educational level of the household of origin. It is a dummy variable coded as one if at least one of the parents has/had a college degree or above; and zero otherwise (base category).

**Class location:** this is the key variable for the study. Respondents were first assigned to one of Wright's nine employee class locations according to their degree of authority and skills/expertise. The degree of authority was determined by combining company-level information about the authority dimension of different occupations with individual-level information about occupation and job description. The degree of skills/expertise was similarly calculated by combining company-level information about the skill requirements of different occupations with individual-level information about occupation and employment department. A description of the operationalizations used to determine the degree of authority and skills/expertise is provided in Appendix A. Given that, as explained in Section 2.4.2, the aim of the analysis was to assess the presence of class mediation on the income discrimination process, the nine original class locations were grouped in two aggregate class categories: *middle class* locations and *working class* locations. The class categories used in this analysis aim at capturing the distinction between class locations that are

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<sup>75</sup> The NetBIG ranking system was quoted by most interviewees as their main source of reference for assessing the quality of universities. The decision to consider the top twenty universities as high-ranking universities is somewhat arbitrary, but previous editions of the NetBIG Ranking show that the top-twenty group is rather stable.

supposed to receive a positive wage-discriminant component (middle class category) and locations for which the privilege-discrimination component is supposed to be zero (working class category). Following the criterion used by Wright (1997: Chapter), the working class includes nonskilled workers, skilled workers and nonskilled supervisors. The remaining class locations (experts, managers and skilled supervisors) were assigned to the middle class (see Figure 2.2 and Appendix A).

## **2.6. Results**

This section presents the results of the analyses. The first part of the section provides some descriptive remarks about the class structure of the sample. The second part investigates the presence of statistically significant differences in yearly wages across the two aggregate class locations. The last part presents the results of the multiple regression models used to understand the determinants of wage variations and to examine the effect of class location on the income determination process.

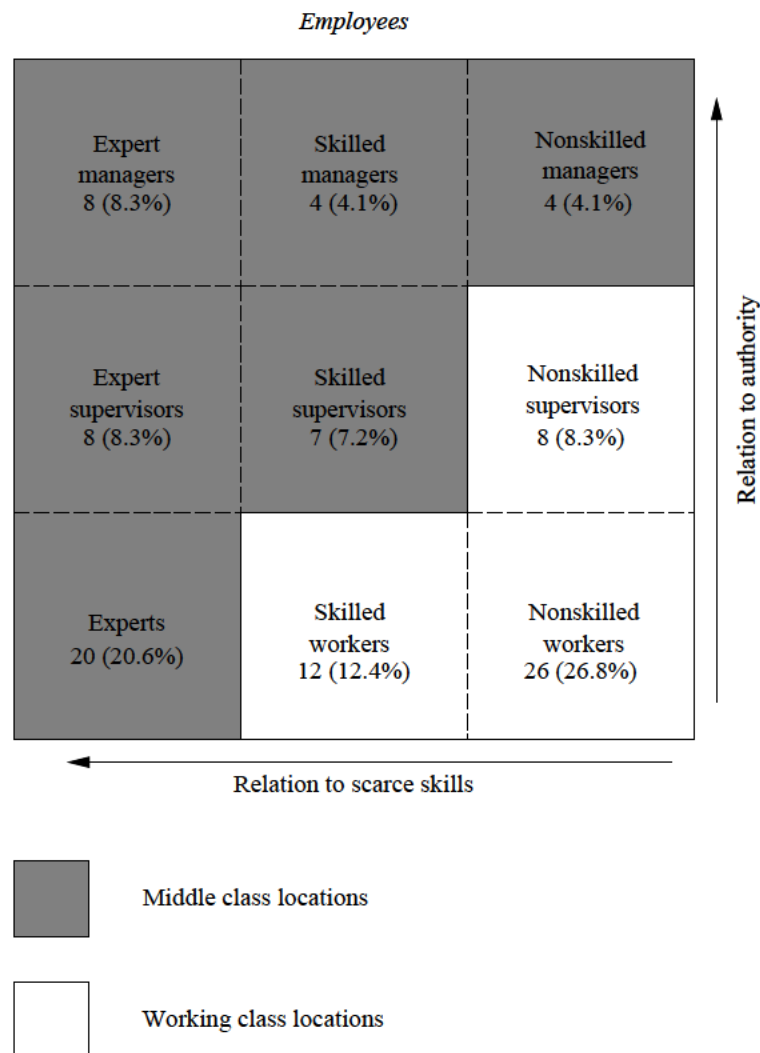
### **2.6.1. The class structure of the sample**

Figure 2.2 presents the distribution of the sampled white collar employees into different class locations. It is important to observe that no general conclusions can be drawn about the class structure of the NNHTDZ or of other development zones in the Nanjing municipality — even less so about larger units of analysis. First, as already discussed, the sectoral mix in the NNHTDZ is oriented towards research- and technology-intensive enterprises; labour-intensive enterprises are generally located in other, less specialized development zones. Second, the study had a limited scope. The survey only included white collar employees; large segments of the class structure (factory workers, business owners, state employees, self-employed, people not in the active labour force) were excluded from the study. Finally, the environmental requirements of the NNHTDZ prohibit the location of polluting or resource-intensive activities within the zone. Therefore some of the

sampled companies only have their administrative and R&D headquarters in the NNHTDZ while the manufacturing facilities are located elsewhere. For these companies, questionnaires were only distributed to white collar employees working in the headquarters and R&D areas, not in the production facilities.

FIGURE 2.2

The distribution of respondents in different class locations





Bearing this in mind, some observations on the distribution of the sampled workers in different class locations can be made. In particular, the size of the ‘pure’ working class location (*non-skilled workers*) is small: slightly more than one-fourth of the sample falls in this class location. Conversely, about one-fifth of the sample was classified as *experts*. Using as a reference the results obtained by Wright for the US and Sweden (Wright, 1997: 85), the size of the experts class location in the sample is disproportionately large even when compared with Wright’s expansive definition of the skill criteria. At the same time, the proportion of respondents assigned to the *nonskilled workers* location is lower than any result obtained by Wright.<sup>76</sup> This could potentially be due to an excessively expansive definition of skills (e.g., some workers and skilled workers could have been incorrectly classified as experts), or to a too restrictive definition of authority (e.g., some workers could have been incorrectly classified as supervisors or managers). It seems however reasonable to attribute these features of the sample to the sectoral specificity of the NNHTDZ and to the fact that manufacturing activities are underrepresented in the zone. In any case, the specificities of the class structure of the NNHTDZ should be a reminder of the limited generalizability of the results.

### 2.6.2. Wage and gender differences among aggregate class categories

As discussed above, according to Wright incomes should increase as one moves away from the working class, since middle class locations are characterized by their privileged location within relations of exploitation. There were visible differences between the average yearly wages across disaggregate class locations, as well as across the two aggregate class locations (Table 2.1). The average yearly wage for white collar employees in middle class locations ( $M=51782$ ,  $SD=22399$ ) was almost double the average wage of white collar employees in working class locations ( $M=26976$ ,  $SD=9434$ ). A t-test was used to compare the mean of the log-transformed yearly wages between the two aggregate class categories (working class and middle class). The t-test suggested that the difference in means was statistically significant ( $t=-7.6848$ ,  $p < .001$  for the two-

<sup>76</sup> I do not intend to claim that direct comparisons are possible between the results obtained by Wright and my own. Wright’s study is based on large, nationally representative samples; furthermore, the operationalizations of class-relevant variable used in his work are different from those adopted here. I just intend to provide the reader with a reference point so as to better underline the atypical features of the study location.

tailed test).

TABLE 2.1  
Gender composition and basic statistics on yearly wages (RMB)

| <i>Class locations</i>           | F  | M  | Mean<br>(wage) | SD<br>(wage) |
|----------------------------------|----|----|----------------|--------------|
| Nonskilled workers               | 14 | 12 | 24436          | 4895         |
| Skilled workers                  | 10 | 2  | 30417          | 11805        |
| Experts                          | 7  | 13 | 44745          | 17661        |
| Nonskilled supervisors           | 4  | 4  | 29750          | 14360        |
| Skilled supervisors              | 2  | 5  | 50286          | 21952        |
| Expert supervisors               | 3  | 5  | 48750          | 22480        |
| Nonskilled managers              | 1  | 3  | 36500          | 9434         |
| Skilled managers                 | 2  | 2  | 60250          | 27693        |
| Expert managers                  | 2  | 6  | 77125          | 19722        |
| <i>Aggregate class locations</i> |    |    |                |              |
| Working class                    | 28 | 18 | 26975          | 9434         |
| Middle class                     | 17 | 34 | 51782          | 22399        |
| <b>Total</b>                     | 45 | 52 | 40154          | 21451        |

Table 2.1 also reports the gender composition of different class categories; a clear gender unbalance was visible. While women made up 60.8 per cent of the working class, they were underrepresented in the middle class (33.3 per cent). A chi-square test indicated significant association between gender and aggregate class location ( $X^2 = 7.374$ ,  $df = 1$ ,  $p < .01$ ).

### 2.6.3. Income determination

The analysis of income determination aimed at investigating the effect of social class on yearly wages (basic wages plus bonuses) net of other income determinants generally included in previous studies. The results of the OLS regression analyses are presented in Table 2.2. All models were estimated by taking into account the characteristics of the sampling design.<sup>77</sup> Since the dependent variable was the natural logarithm of the yearly wage, regression coefficients can be exponentiated and interpreted in terms of percent changes in the dependent variable.<sup>78</sup>

Three nested models were estimated. The baseline model (Model 1) only included standard human capital variables (work experience and education). Model 2 added variables conceptually linked to social and cultural capital. The first was *job help*, with the aim of testing for the presence of effects related to the capacity to mobilize social networks during the job search process. The second was the pooled educational level of the family of origin.<sup>79</sup> Finally, the model also included the university rank variable. Model 3 introduced the dichotomous class category variable, thus permitting the estimation of the net effect of social class on wages. *Gender* was included as a control variable in all models.

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<sup>77</sup> Clustered robust estimators (company being the clustering variable) were used to account for the possible correlation between the wages of employees working for the same company. Given the different size of companies, sampling weights were used to account for the different sampling probabilities generated by the non-proportional sampling design. Listwise deletion was used to remove observations in which key variables were missing, and the same subsample of 93 observations was used to estimate the three models.

<sup>78</sup> More accurately, the exponentiated values of the coefficients correspond to changes in the ratio of the expected geometric means of the yearly wages in RMB.

<sup>79</sup> I originally intended to include other variables aimed at capturing the respondents' direct and mediated relation to the party-state. In the first case, I planned to use respondents' membership in the Chinese Communist Party [CCP] and their having previously been employed in the core state sector (defined as public administration and SOEs) as proxies for direct political capital. The survey, however, showed that none of the respondents was a Party member. This is not surprising, since previous research has found that the CCP is having difficulties in recruiting from the well-educated middle classes that are the focus of this study (Sato & Eto, 2008). Furthermore, only three respondents were employed in the state sector in their two previous jobs. Thus, variables capturing the direct linkage of respondents to the state and to the Party were not included in the analyses presented here. I also ran other regression models that included a proxy for the respondents' family links to the party-state (a dummy variable set at one if at least one of the parents was a cadre, professional or manager in the public administration or in a State-Owned Enterprise). The variable was conceptually related, in Wright's terminology, to the presence of 'mediated class relations' to the statist sector. The variable never appeared to have a significant effect on wages, so it was dropped from the model. Results for the models including the family political capital are available from the author.

TABLE 2.2  
Model coefficients from the regression of ln(yearly wages)  
on individual characteristics and class location

| Variable                 | Model 1  | Model 2  | Model 3  |
|--------------------------|----------|----------|----------|
| Gender                   | 0.074    | 0.123    | 0.098    |
| Years of education       | 0.164**  | 0.126*** | 0.093*   |
| Years of work experience | 0.033*   | 0.019*   | 0.018*   |
| High-ranking university  |          | 0.348**  | 0.192    |
| Job help                 |          | -0.222   | -0.161   |
| Parent(s) college degree |          | 0.225**  | 0.151*   |
| Middle class [MC]        |          |          | 0.339*** |
| Intercept                | 7.555*** | 7.833*** | 8.395*** |
| N                        | 93       | 93       | 93       |
| R2                       | 0.384    | 0.492    | 0.584    |

\*  $p < .05$ ;      \*\*  $p < .01$ ;      \*\*\*  $p < .001$

The results of Model 1 suggested that education and work experience had a significant and positive effect on yearly wages. In Model 2, after controlling for the effect of social and cultural capital variables, the positive and significant effects of education and work experience on wages were confirmed although with some reduction in the size of the coefficients. The reduction was larger for work experience than for years of education. Model 2 also indicated that having graduated from a top-twenty university positively affected the level of wages. All other variables held constant, a graduate from a top-ranking institution could expect to receive a wage about 41 per cent higher than a graduate from a lower-ranking institution. No significant effect could instead be detected for the use of job search networks. The educational level of the family of origin had instead a large and significant effect on the level of wages. Other variables held constant, having at

least one parent with a college degree was shown to increase the level of wages by about 25 per cent. Gender remained insignificant in Model 2, a result also confirmed in Model 3.

Model 3 finally considered the effect of the relationally-defined aggregate class category. The first thing to notice is that the inclusion of social class further attenuated the effect of education, with the coefficient for this variable dropping from .126 to .093. In terms of exponentiated coefficients, this corresponded to a drop from an expected 13 per cent wage premium for each year of education (Model 2) to an expected 10 per cent premium (Model 3). The inclusion of the class variable had a similar effect on the coefficient for the family educational level, which remained significant but with a smaller coefficient. No relevant changes were detected in the value of the regression coefficient for work experience, which remained significant in Model 3. After accounting for class location, having graduated from a top-ranking university was found to have no significant effect on the level of wages. Turning now to the effect of class location, the results suggested that being located in the middle class category is a significant determinant of wages. A white collar employee in a middle class location could expect to earn about 40 per cent more than a white collar employee with the same gender, education, work experience, job networks and educational background but located in a working class location.

## **2.7. Discussion**

The results of the analyses indicated that class location is an important determinant of wage inequality in the NNHTDZ. The effect of social class on wages were consistent with Wright's theory. The analysis appears to confirm the presence of a positive discrimination-privilege component for contradictory class locations and privileged appropriation locations. The inclusion of the relationally-defined class variable appeared to attenuate the effect of education on wages, while the effect of work experience remained stable.

The mobilization of social networks for job search did not seem to significantly affect wages. It seems legitimate to conclude that social networks can provide a privileged path of entry into a job, but cannot guarantee a high income. Interestingly, the effect of university ranking became insignificant after the inclusion of the class variable. It must however be noted that, since the coefficient for university ranking is in the expected (positive) direction, its effect on wages would be significant in Model 3 using a one-tailed t-test ( $t=2.09$ ,  $p=0.033$  for the one-tailed test). Some descriptive data may help make sense of this result. There seems in fact to be a clear link between rank of the university and middle class location. Among the 41 respondents who were classified in the working class, only one had attended a top-twenty institution. For middle class respondents, 15 out of 51 (about 30 per cent) had instead attended a high-ranking university. Furthermore, respondents who had at least one parent with a college education were far more likely to have graduated from a high-ranking institution (23 per cent of them did) than respondents whose parents did not have a college degree (13 per cent).

Similar observations can be made with regard to gender. Gender did not appear to have a significant effect on wages in any of the models; nonetheless, as already noted the gender distribution in middle class locations was significantly skewed. About 67 per cent of middle class incumbents were male; for working class locations, the proportion of males fell to 40 per cent. Both results seem to suggest the presence of closure mechanisms restricting access to middle class locations on the basis of gender and on the basis of ascriptive characteristics. The link between university rank, family education, gender and class location would deserve further investigation.

## **2.8. Conclusions**

This study was a first attempt to apply Wright's class analysis to the investigation of the determinants of inequality in post-Mao China. Although being of limited generalizability given the specificity of the study location and the small sample size, the results of the study seem to cast a shadow on the view of markets as neutral selection mechanisms postulated by the MTT and endorsed by its

structural critics. With all its limitations, this study suggests that social class is an important determinant of wage inequality in one of the most advanced sectors of the Chinese economy, where most of the structural restrictions on the functioning of labour markets pointed out by the previous literature are absent. The patterns of wage inequality observed in the NNHTDZ are consistent with Wright's theory of income determination, which postulates a mediating effect of social class on the income determination process. This is certainly indicative of the need for a research agenda that shifts away from the individualism and gradational approach of previous studies towards one that encompasses class relations.

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### ***Introduction to Chapter 3***

The previous chapter showed the relevance of class as a determinant of wage inequality. The aim of this chapter is to extend the analysis to nonwage forms of compensation such as in-kind benefits, welfare provisions, additional sources of income and so on. As first recognized by Konrád and Szelényi in *The Intellectuals on the Road to Class Power*, nonwage benefits were the main component of inequality in state socialist redistributive societies. Consequently, much research has focused on the analysis of nonwage benefits.

Most studies of income determination in post-Mao China, however, reduce nonwage benefits to their monetary equivalent and are only concerned with their contribution to total incomes. In this chapter I suggest that the nature, function and combination of benefits are as important as their monetary value. Building upon Wright's neo-Marxist class analysis, I argue that benefits should be conceptualized as mechanisms of social control over labour. Since mechanisms of social control are not homogeneous across class locations, the processes governing the distribution of different forms of benefits can be expected to vary according to the class location of individuals. A class analysis of benefits requires, for these reasons, a disaggregate approach.

In this study, benefits were assigned to one of three categories defined on the basis of Wright's theory of income determination. A series of Poisson models was estimated to investigate how class location (again defined on the basis of Wright's class scheme) and individual-level attributes affected the distribution of different categories of benefits. The results of the study were at least in part consistent with Wright's predictions. In particular, benefits related to long-term career prospects and to temporal class trajectories were strongly associated with middle class locations.

### **3. A class analysis of benefits distribution**

According to the theory of state socialist redistribution, the administrative allocation of non-wage income in the form of goods, services and in-kind subsidies was the main source of material inequality in socialist societies (Konrád & Szelényi, 1979; Szelényi, 1978). The theory of state socialist redistribution has significantly influenced the quantitatively oriented literature on inequality and social stratification in post-Mao China. Authors writing on post-Mao China have paid considerable attention to the distribution of non-wage income in the wake of market reforms, but in most cases they have exclusively focused on the quantitative contribution of non-wage forms of remuneration to total income or total earnings. Bonuses, allowances, fringe benefits and in-kind subsidies are reduced to their monetary equivalent, summed to wage income or earnings and in this highly aggregate form included as dependent variables in income determination models.<sup>80</sup>

I argue in this paper that the aggregate, income-based approach prevalent in the literature does not provide a comprehensive picture of the contribution of benefits to inequality and social stratification. Building upon Wright's neo-Marxist class analysis (Wright, 1979; 1985; 1997;

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<sup>80</sup> For the sake of readability, I will in the remainder of the paper use the words 'benefits' to refer to all forms of remuneration beyond the basic wage. 'Benefits' as used here include bonuses, subsidies, perks, welfare entitlements, cash allowances, subsidized services, in-kind benefits and 'floating wages' (for state-sector companies, the portion of wage beyond the administratively set basic wage).

2005), I suggest that benefits are a mechanism of social control aimed at inducing workers to perform surplus labour. Different forms of benefits have different functions: the allocation of income beyond the basic wage is certainly one of them, but benefits are also related to the placement of individuals on predictable career paths, to the legitimization of corporate hierarchies through status and income differentials and to the moderation of social unrest through the state-mandated provision of welfare guarantees. Since forms of social control are not homogeneous across employee class locations, we can expect that different class locations will be associated with different forms of benefits.

The view of benefits as social control mechanisms requires a disaggregated, qualitative analysis of non-wage forms of remuneration. This dimension of the problem is regrettably entirely lost in the aggregate, income-based approach. This paper addresses the gap in the literature by analyzing the class distribution of different categories of benefits among white collar employees working for companies located in a Chinese New- and High-Technology Development Zone. Unlike the previous literature, the study focuses on the functions, types and combination of benefits rather than on their monetary equivalent. The study is based on twelve months of fieldwork carried out in Nanjing between 2008 and 2009. Qualitative data were collected through direct observation and 30 face-to-face interviews with company managers and local government officials. Quantitative data were collected through a survey questionnaire distributed to a clustered random sample of 97 employees working for ten companies located in the Nanjing New- and High-Technology Development Zone [NNHTDZ].

The neo-Marxist relational class model proposed in Wright (1997) was used to allocate individuals to nine employee class locations according to their degree of authority in the workplace and to their level of skills/expertise. For the empirical analysis performed in this paper, the nine class locations were aggregated in two class categories: middle class and working class. The two class categories aim at capturing structural class differences within the white collar employee population that are supposed to be theoretically relevant in Wright's theory of income determination. A comprehensive list of the various forms of benefits included in employee remuneration packages was compiled from interviews with HR and division managers; employees were then asked to

indicate which benefits they received in the previous year. For the analysis presented in this study, benefits were grouped in three categories named perks, welfare and career. The definition of the three categories was guided by insights derived from Wright's class theory of income determination (Wright, 1979). Benefits were assigned to a category according to qualitative data collected through direct observation and face-to-face interviews.

A series of Poisson models was then estimated to assess how class location and individual characteristics affect the distribution of benefits belonging to different categories. The results of the analysis suggest that the distribution of benefits quite closely follows the class dynamics postulated by Wright. In particular, benefits linked to long-term career prospects are clearly associated with middle class locations — locations that should more accurately be defined, in Wright's terminology, 'contradictory locations within capitalist class relations'.

The remainder of the paper is organized as follows: Section 3.1 introduces the concept of state socialist redistribution and the associated theory of inequality under socialism. Section 3.2 discusses the previous literature on benefits distribution in post-Mao China. Section 3.3 contrast the aggregate, income-based analysis of benefits prevalent in the literature on post-Mao China with the view of benefits as mechanisms of social control derived from Wright's class theory. The following four sections present the results of the empirical analysis: Section 3.4 describes the dataset and the research design; Section 3.5 provides a descriptive analysis of the distribution of different types of benefits across class locations; Section 3.6 and 3.7 present the analysis of the determinants of access to different categories of benefits; Section 3.8 summarizes the main findings. The final section draws some tentative conclusions. Details on the operationalization of class variables are provided in Appendix A.

### **3.1. Benefits and inequality in state socialist redistributive economies**



The theory of state socialist redistribution (Szelényi, 1978; 1983; Konrád & Szelényi, 1979) has heavily influenced the research agenda on inequality and stratification in post-Mao China, and it has in several ways shaped the approach to the analysis of benefits in the post-reform period. I will briefly summarize the main elements of the theory in order to guide the following discussion of the China literature and better identify its limitations.

The state socialist redistributive economy is defined as a system in which surplus is first centrally appropriated by the state, then re-allocated by planners ('redistributors') through budgetary means.<sup>81</sup> According to Szelényi, state socialist redistribution generates inequality because redistributors '[...] "favour their own kind" (or more sociologically speaking: the class which is organized around the monopoly of redistributive power), when they allocate scarce resources' (1978: 77). A first corollary of the theory is that non-wage income is the main source of material inequality in socialist societies: while wage levels were administratively set according to an egalitarian logic, the allocation of housing, subsidies, welfare entitlements and in-kind benefits advantaged the politically powerful and the better educated over the rural and urban working class. A second tenet of the theory is that markets have an equalizing effect in state socialist redistributive economies, since they advantage low-income groups. Given that inequalities are generated by the unequal distribution of benefits through bureaucratic mechanisms, the expansion of markets decreases the amount of surplus that redistributors can reallocate to their associates through non-wage forms of compensation. In this way, markets reduce the inequality between redistributors and direct producers.<sup>82</sup>

A third important point is that class relations are defined only according to the capacity to exert control over the appropriation and the redistribution of surplus.<sup>83</sup> In the first formulation of

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<sup>81</sup> The concept of state socialist redistribution builds upon Polanyi's historical analysis of modes of economic integration. State socialist redistribution is defined as a 'rational' variant of redistribution.

<sup>82</sup> This early analysis of the effect of markets in a state socialist redistributive economy has been later expanded in what the authors call a 'neo-Polanyian' framework (Szelényi & Kostello, 1996; 2001). In this later elaboration, inequality is not linked to a specific mode of economic integration but to its *dominant* or *compensatory* function within a given society. Markets do not have a universal equalizing effect, but markets reduce inequality in state socialist redistributive societies because they are the compensatory mode of integration.

<sup>83</sup> The capacity to control the appropriation and redistribution of surplus is linked to the concept of legitimacy. Drawing

the theory, Konrád and Szelényi (1979) suggested that ‘teleological knowledge’ constituted the basis of class power in post-stalinist socialism. The dominant New Class of state socialism (state redistributors as well as their technocratic and intellectual allies) legitimated its control over the appropriation and distribution of surplus by claiming the capacity to identify and pursue the most desirable collective social goals.<sup>84</sup> The class relations postulated by the theory of state socialist redistribution generate a polarized class structure:

Rational-redistributive society [...] can best be described as a *dichotomous* class structure in which the classical antagonism of capitalist and proletarian is replaced by a new one between an intellectual class being formed around the position of the redistributors, and a working class deprived of any right to participate in redistribution (Konrád & Szelényi, 1979: 222; italics in the original).

Finally, the distribution of benefits is seen as a rather marginal consequence of the class relations of state redistributive societies. On this point, it may be worth quoting Szelényi at some length:

The crucial point is that the type of inequalities I described above are rooted in relations of production which are specific to State socialist redistributive economics. They are expression of the basic conflict of State socialist societies, the conflict between the ‘immediate producer’ and the ‘redistributor’. In a way the inequalities in the access to scarce material goods are only side products. If we can say that there is a new dominating class under State socialism then its main purpose is the maximization

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on Weber, King and Szelényi (2004: 76) argue that a mechanism of surplus appropriation imposed by coercion is not sustainable in the long run. To be sustainable, the dominant order has to become legitimate. Legitimacy is achieved when ‘most of the people subjected to domination will internalize the principle used by power holders’ so that they ‘will not be able to imagine an alternative way of organizing society’. The history of socialism is ultimately ‘the history of shifting legitimacy claims’ (King & Szelényi, 2004: 76), and the historical evolution of the class structure of socialist societies can be explained by changes in the sources of legitimacy in different stages of socialism.

<sup>84</sup> The optimistic assessment of the potentiality for success of the knowledge-based New Class project provided in *The Intellectuals* has also been reconsidered by Szelényi in later writings (See, for example, King & Szelényi, 2004; Szelényi & Kostello, 2001: Chapter 5). With the opening-up of the so-called ‘second economy’ in the late 1960s, economic capital emerged as a potential class basis for a new petty bourgeoisie of ‘socialist entrepreneurs’ Szelényi, 1988. In the late 1980s, the privatization of public assets completed the shift to a market-exchange mode of economic integration in which surplus appropriation was legitimized by the private ownership of the means of production (Szelényi & Kostello, 1996).

of redistributive power and better access to material goods is just a kind of ‘fringe-benefit’ to their members (Szelényi, 1978: 77-78).

### **3.2. Previous studies of benefits distribution in China**

The theory of state socialist redistribution has had a lasting influence on the study of inequality and stratification in post-socialist societies. Key elements of the theory (the equalizing effect of markets, the importance of benefits for total inequality, the dichotomous picture of the class structure and the notion that benefits are simply a form of surplus redistribution) resonate throughout research on post-Mao China.

The idea that markets have an equalizing effect in socialist societies has found a strong supporter in Victor Nee, who placed the dichotomy between ‘state redistributors’ and ‘direct producers’ at the core of his controversial Market Transition Theory (Nee, 1989; 1991). Research in the Market Transition stream has focused on assessing whether income inequality between redistributors and direct producers has diminished with the development of markets. Recognizing the relevant contribution of benefits to total inequality, most empirical models within the Market Transition school utilize total earnings or total income as a dependent variable. The contribution of benefits to inequality is equated to their monetary equivalent, which is included in the calculation of total income or total earnings. This approach implies that only scant information (often none at all) is provided about the kinds of benefits received by survey respondents (see for example Bian & Logan, 1996; Cao, 2001; Peng, 1992). The same holds true for structural critics of the Market Transition Theory.<sup>85</sup> Even in this case, benefits are simply treated as a part of total income (Wu & Xie, 2003; Zang, 2002; Zhang et al., 2005; Zhou, 2000; Zhou & Moen, 2001).

The idea that state redistribution and benefits allocation are crucial to understanding inequality in socialist and post-socialist societies also has a prominent role in the neo-institutionalist

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<sup>85</sup> See Chapter 2 for a discussion of structural critiques to the Market Transition Theory.

theorization of Andrew Walder (1992; 1994; 1995). Walder notes that, while basic wages were administratively set in China, the mechanisms governing the distribution of benefits were heavily decentralized both during and after the Maoist period. During the Maoist period, the work unit (*danwei*) was the main provider of welfare, benefits and in-kind subsidies for its employees. After reforms, enterprises and work-units were allowed to independently set the level of bonuses distributed to workers and managers, and could decide how much to invest in goods and services for their employees (canteens, childcare, healthcare funds, company housing and so on). Given the decentralized nature of the Chinese system, Walder argues, the distribution of benefits is not only a function of individual-level processes but also of structural processes linked to the location of organizations within the fiscal and budgetary systems of the socialist and post-socialist state. Because of the lack of clearly-defined residual property rights, different organizations can retain a higher or lower share of the profits generated through their productive activities. Furthermore, depending on their bargaining power vis-a-vis their controlling administrative units, organizations can receive a higher or lower share of the surplus redistributed through bureaucratic means. Different organizations can therefore be more or less able (and more or less willing) to provide benefits to their workers.

Walder has consequently proposed an ‘institutional theory of stratification’ which links segmentation in the distribution of benefits to organizational factors (Walder, 1992). He has further argued that other structural elements such as the rate of economic growth, the political process guiding decollectivization and the institutional environment in which reforms take place influence the allocation of wage and non-wage incomes (Walder, 1994; 1995; 1996; 2002). Walder’s theorization has inspired a substantial amount of research on the organizational, political and institutional determinants of incomes and benefits. The first study in this stream of literature (Walder, 1992) is one of the few to focus on the type and variety of benefits available to workers in different work units. The approach is however only limited to the state sector and has unfortunately been abandoned in subsequent studies, in which benefits are again reduced to their quantitative contribution to total incomes (Walder, 2002).

Finally, the conflation of wage and non-wage incomes in a single aggregate measure is common in studies of a more economic nature, concerned more with the measurement of inequality and its evolution than with its social implications. In this literature, benefits are included in total earnings or grouped in highly-aggregate categories (Gustafsson & Li, 2001; Han & Zhang, 2010; Hauser & Xie, 2005; Knight & Li, 2005).

There are very few exceptions to the aggregate view of benefits. Some studies have specifically focused on the distribution of bonuses, which are the main monetary component of non-wage remuneration (Cao, 2004; Coady & Wang, 2000). A qualitatively-oriented, descriptive approach to the study of benefits has sometimes been proposed in the business literature on post-Mao China. The main concern of the business literature is however the linkage between compensation and managerial productivity, while the social aspects of inequality are entirely overlooked. The analysis is therefore restricted to managers and nothing is said about the distribution of benefits among other occupational categories (see for example Ding et al., 2006).

### **3.3. A class approach to the analysis of benefits**

I argued in the previous section that the literature on post-Mao China reduces benefits to their monetary equivalent. This approach finds a theoretical justification in the theory of state socialist redistribution, according to which the relation between class and benefits is quite straightforward: benefits are the means through which the dominant class appropriates for personal use part of the surplus extracted from direct producers. In the polarized view of the class structure proposed by theorist of socialist redistribution, this means that redistributors and their class allies have access to more benefits while direct producers have access to fewer benefits. At the theoretical level, there is little need for an elaboration of the possible qualitative variations in the forms of benefits received by each class; at the empirical level, such an analysis has never been performed.

It is worth recalling how, in one of the passages quoted above, the knowledge-based polarization between workers and redistributors is introduced through an analogy with the ownership-based Marxist dichotomy between workers and capitalists. The neo-Marxist class analysis developed by Wright tries instead to move beyond the simple polarized view of the class structure proposed by classical Marxism, and in so doing provides the foundations for a more complex articulation of the relation between benefits and class location.<sup>86</sup> Wright's class analysis (Wright, 1979; 1985; 1997; 2005) aims at developing a Marxist concept of class able to capture in a theoretically consistent fashion the presence of intermediate (i.e., non-capitalist, non-proletarian) class locations in the capitalist class structure.<sup>87</sup> One variant of Wright's analysis of the capitalist class structure — the twelve-locations map proposed in Wright (1997) — has been used to allocate white collar employees to one of nine employee class locations; the model is discussed in the following Section. Consistently with Wright's indications (see Section 1.2.6), for the empirical analyses performed in this study the nine employee class locations have been grouped into two aggregate class categories (middle class and working class). The two aggregate class categories capture the distinction between white collar employees who are relationally located in *contradictory class locations* and/or *privileged appropriation relations*, and white collar employees who are not.

This distinction is of theoretical relevance for the analysis of benefits distribution proposed in this study, which is based on Wright's class theory of income determination (Wright, 1979; Chapters 3 and 4) and on his elaboration of the notion of 'temporal complexity' in class locations

<sup>86</sup> Benefits and working conditions are intimately related to class also according to the class theory of Goldthorpe (Erickson & Goldthorpe, 1992; Goldthorpe, 1987). For Goldthorpe, the distinction between a 'service' and 'employment' relationship is crucial to the definition of employee class locations. An employment relationship involves the exchange of a wage for the performance of a specific task. A service relationship is far more complex, since it includes important perspective elements such as career paths, mechanisms of promotion and job stability. Both Wright and Goldthorpe underline the importance of temporal elements in the study of class and both provide a more elaborate starting point for the analysis of the relation between benefits and class. I believe however that Wright's class theory provides a more appropriate starting point for the study of post-Mao China, particularly because it allows conception of class in non-capitalist societies and because it offers an explicit model of interaction between class relations generated in different modes of production.

<sup>87</sup> Wright at first tried to derive a non-polarized map of the capitalist class structure from a single analytical principle. First he relied on the notion of 'contradictory locations between class relations', according to which class locations could be simultaneously placed in more than one class (Wright, 1979). The second formulation of the theory was built on the concept of 'multiple exploitation', i.e. the idea that class locations could combine more than one mechanism of exploitation (Wright, 1985). Wright has later abandoned the idea of a finding a unifying principle, and has elaborated a more flexible approach pivoting around the ideas of complexity in class relations and complexity in class locations (Wright, 1989; Wright, 1997; Wright, 2005). He has recently argued that class, closure and attribute-based selection interact in defining the structure of inequality, and that the aim of class analysis should be to elucidate the interactions between these different mechanisms (Wright, 2009).

(Wright, 1989; Wright, 2005). I will discuss these two concepts in some detail.

Wright (1979) argues that class has mediating and limiting effects on the income determination process. In other words, class affects the way in which individual attributes such as education and work experience operate on the distribution of income in a given social formation. First, the income determination process is not homogeneous across class locations because individuals differently located in the social relations of production acquire their income through various means. Capitalists, for example, obtain their income through the exploitation of workers, while workers obtain their income by selling part of their labour power for a wage. Second, and more relevantly to this chapter, the income determination process is not homogeneous among workers themselves. Class mechanisms influence income determination in several ways, particularly through the effect of class location on the privilege/discrimination component of the wage.

The privilege/discrimination component of the wage is the portion of the wage above or below the standard wage for any given type of labour power.<sup>88</sup> In normal conditions, the privilege/discrimination component for the working class should be close to zero or negative (as in the case of women or minority ethnic groups who are discriminated against and receive lower wages than their male/white equivalents). The privilege/discrimination component can however become positive either because of temporary or artificially generated shortages in specific categories of labour power (skilled labour power in particular), or because of an increase in remuneration as part of strategies of social control put in place by employers.

The necessity to utilize strategies of social control stems from the fact that, in the capitalist mode of production, capitalists purchase the labour power of workers (i.e., their capacity to perform labour for a given period of time), not actual labour. The extraction of surplus requires that the value of the labour performed by workers must exceed the cost of their labour power. Capitalists therefore not only need a way to appropriate the surplus produced by workers but they also

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<sup>88</sup> More specifically, Wright (1979: 80-83) suggests that the wage (i.e., the value of labour power) is composed of three components. The first represents the social standard for average labour (i.e., the basic cost of reproducing labour power). The second component represents additional costs linked to the reproduction of specific types of labour power, for example skilled labour. This second component is somehow akin to the skill premium postulated by human capital theory. The third component is the part of the wage that is above or below the value of labour power, and captures the wage privilege/discrimination element.

need to make sure that workers put adequate efforts into production so as to generate surplus value.<sup>89</sup> Strategies of social control are then the means through which employers secure the production of surplus value from the workers they employ. Such strategies include sanctions (i.e., dismissal) as well as inducements in the form of higher income and promotions.<sup>90</sup>

In implementing forms of social control, the choice between inducements and sanctions depends, among other things, on the class location of individuals. Wright postulates that inducements will be particularly important for ‘contradictory class locations’, i.e. employee class locations characterized by the possession of skills/expertise or by the exercise of authority in the workplace (Wright, 1979: 86-91; 1997). Jobs requiring a high level of skills/expertise involve a relevant degree of autonomy and creativity. They are therefore more difficult to monitor, and the excessive use of sanctions can curb innovation. The same is true for managerial positions, with further complication deriving from the fact that managers exercise delegated capitalist domination over their subordinates. Managers should not only be induced to perform complex tasks in the best possible way, but must also be endowed with the legitimacy and authority required to impart orders to their subordinates. Levels in the managerial hierarchies are for this reason often characterized by wide income differentials and by the allocation of status-bearing goods. Alongside income and status, the capitalist ideology poses merit as a legitimating device; consequently, promotion among managerial ranks is often associated with educational credentials.

For these reasons, the implementation of social control mechanisms for skilled and managerial ‘contradictory class locations’ can be expected to rely more heavily on inducements than on sanctions. These class locations often receive a sizeable positive privilege/discrimination wage

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<sup>89</sup> Several things should be noted in this regard. The first is that, notwithstanding the insistence of the literature on the hybrid nature of the post-reform Chinese economy, there is little doubt that the mechanism of surplus generation in China depends on the performance of surplus labour by workers recruited on capitalist labour markets. The second is that the necessity to force the dominated classes to produce surplus for the dominant classes is not specific to capitalism. Burawoy (1979) has argued that in every mode of production the dominant classes need mechanisms to secure and obscure the appropriation of surplus. It can be said that the theory of state socialist redistributors poses an exclusive emphasis on the ways in which redistributors obscure surplus appropriation (legitimacy), but overlooks the ways in which they secure the production of surplus. For this reason, the theory of state socialist redistribution is not concerned with forms of coercion or enticement within the labour process. Non-wage forms of remuneration are only seen as an additional source of income, not as part of the repertoire used to dominate workers.

<sup>90</sup> Ideology can be considered a third mechanism of social control.



component and are more likely than workers to be placed on predictable career paths. In Wright's terminology, they occupy 'privileged appropriation locations within exploitative class relations' and enjoy a degree of 'partial ownership' in their jobs (Wright, 1997).

Benefits are therefore to be understood as part of a repertoire of strategies of social control. While income is part of these strategies, there are other elements such as the conferral of status, job stability and career prospects. Different forms of benefits will have, in this view, different functions: perks, in-kind subsidies and other fringe benefits provide additional income as well as access to desirable and status-bearing goods. Benefits can also signal a long-term commitment of the company toward an employee and suggest that an employee is placed on a career path with foreseeable promotions.<sup>91</sup> Different forms of benefits can be expected to be more or less related to specific location within the class structure. The analysis of how different benefits can embody different strategies of social control, and the analysis of how these benefits are distributed across employee class locations requires that benefits be analyzed in a disaggregated and qualitative fashion.

The aggregate class categories used in this study (working class and middle class) aim at differentiating between white collar employees located in working class locations and those white collar employees who, because of their structural position within relations of domination and exploitation, belong to contradictory class locations or to privileged appropriation locations. As explained above, according to Wright's theory these two groups should be associated with different strategies of social control and, consequently, with different forms of benefits.

### **3.3.1. Benefits in the wake of Chinese labour and welfare reforms**

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<sup>91</sup> The notion of a career ladder is also linked to the concept of 'temporal complexity' in class relations (Wright, 1989; 2005). Class relations are temporally complex because some jobs are part of well-defined trajectories that can in time cross class boundaries or grant a stable position in a privileged class location. Being placed on a career ladder signals that an employee has achieved a 'partial ownership' in the job, with formally or informally defined claims to stability, career advancements, pay rises and so on.

In his analysis of benefits, Wright refers to capitalist societies. Can his framework be applied to post-Mao China, a system in which capitalist elements coexist with strong legacies of the planned system? A brief discussion of labour and welfare reforms in post-Mao China provides the necessary background to the analysis of benefits as mechanisms of social control over labour.

The prevalent interpretations of Chinese welfare and labour reforms are framed in neoliberal jargon: flexibility, competitiveness, incentives to productivity and fiscal crisis of the state are seen, in various combinations, as the main drivers of reforms. Ching Kwan Lee has proposed a more radical reading, arguing that labour and welfare reforms are the founding acts of China's embrace of capitalism. In Lee's view, labour and welfare reforms were ultimately functional to China's export-oriented growth model and aimed at creating a docile and exploitable workforce that could provide a competitive advantage in international markets.

Security of employment was inherent to the Maoist system: individuals did not have to seek work, but were administratively allocated to a work unit (*danwei*), often with lifelong tenure.<sup>92</sup> Urban workers, particularly those in the core state sector, also enjoyed a generous welfare package whose administration was delegated to the work unit itself. Labour and welfare reforms have all but eradicated the guarantees provided to workers under the Maoist system and have ultimately resulted in the commodification and casualization of labour (Friedman & Lee, 2010; see also Harvey, 2005).

On the one hand, labour power has become a commodity exchanged on the market, subject to a 'rule of law' centered on the idea of voluntaristic individual contracts (Friedman & Lee, 2010). Chinese labour legislations formally provides guarantees comparable to international standards for what concerns working hours, fair termination, minimum wage, paid leave and equal pay for equal work (Ho, 2009; Kwong & Qui, 2003). In reality, compliance with official labour standards is very weak, particularly in the non-state sector. Noncompliance has been imputed to a weak enforcement system coupled with the absence of real workers' collective representation;

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<sup>92</sup> Since the study concerns an urban industrial development zone, the following discussion of labour and welfare reforms only focuses on the urban sector. The pre- and post-reform rural welfare and labour systems are in several regards different from their urban counterparts. These differences are of little relevance to the present discussion.

furthermore, legislative requirements are often circumvented through the recourse to informal, part-time and 'dispatched' work (Cooney, 2007; Friedman & Lee, 2010; Ho, 2009; Ngok, 2008). Although often heralded as a breakthrough in workers' protection, the 2007 Labour Contract Law has further strengthened the legalized, individualistic approach to labour rights in China and conceded very little to workers' collective representation and negotiation (Friedman & Lee, 2010).

At the same time, the phasing out of the pre-reform welfare system has further contributed to the neoliberal reconfiguration of Chinese work relations. Reforms of the pension, healthcare and unemployment system have followed a common blueprint. Three elements have been at the core of these reforms: first, a move away from the *danwei* as the main provider of welfare; second, an increased reliance on individual- and enterprise-level contributions; third, a greater role for government (particularly local governments) in welfare provision (Gao, 2006). Welfare insurance schemes are co-financed by employers and employees through mandatory contributions to different funds (pooled funds and individual funds), often administered by local governments. Beyond the basic mandatory schemes, enterprises and individuals can voluntarily purchase additional medical, unemployment and pension insurance funds by participating in privately-run schemes (Kwong & Qui, 2003).

The implementation of the new welfare systems has proved problematic. The real coverage of the basic pensions, health, unemployment and work injury insurance schemes has fallen dramatically short of the universal welfare provision envisaged in official regulations (Duckett, 2001; Duckett, 2004; Liu, 2007; Nyland et al., 2006; Solinger, 2002; Zhao & Xu, 2002). Employers have found several ways not to contribute to the welfare insurance schemes, or to contribute less than expected. Non-participation has been particularly widespread among private enterprises and state-owned enterprises under direct control of the central government. Apart from individual firms not complying with the law, the government itself seems to have adopted a quite flexible approach to the enforcement of workers' guarantees. In response to the Global Financial Crisis of 2008 for example, local governments in export-oriented provinces were allowed to reduce employers' contributions to social insurance funds (Friedman & Lee, 2010). Embezzlement, diversion and speculative utilization of welfare insurance funds by local officials have also been reported (Liu, 2007;

Salditt et al., 2008). Finally, workers who change jobs across administrative units (county or province) are often not entitled to transfer their individual accounts to the new pension fund, and risk losing their contributions (Salditt et al., 2008; Solinger, 2002). Similarly uneven has been the application of regulations concerning labour contracts. Although the 2007 Labour Contract Law stipulates that, after signing two fixed-contracts, an employee is automatically entitled to a permanent contract, permanent contracts are still used sparingly. Labour and welfare reforms have thus created the conditions for the selective utilization of benefits as mechanisms of social control over labour in a fashion consistent with Wright's conceptualization.

### **3.4. Data, context and research design**

This study is based on an original dataset collected by the author in the Nanjing New- and High-Technology Development Zone [NNHTDZ] between 2008 and 2009. Nanjing, situated about 300km inland from Shanghai, is the capital of Jiangsu province and belongs to the affluent Yangtze River Delta [YRD] region.<sup>93</sup> The NNHTDZ is one of several industrial development zones located in Nanjing. The NNHTDZ was jointly established by Jiangsu province and Nanjing municipality in 1992. One year later, it became the first development zone in southern Jiangsu (Su'nan) to obtain national-level recognition. Thanks to its focus on research- and technology-intensive enterprises, the NNHTDZ is at the core of Nanjing's industrial upgrading strategy (Cucco, 2008).

Because of its sectoral specificities, demand for skilled labour in the NNHTDZ is high. The local labour market is very competitive, with high turnover rates and a prevalence of impersonal channels of recruitment. Competition for skilled labour is strong not only within Nanjing, but throughout the Yangtze River Delta region since the area (which includes Shanghai and the most advanced areas of Zhejiang Province) hosts a large number of high-technology industrial parks. Attempts made by the NNHTDZ administration to territorialize skilled labour within the zone have proved unsuccessful. Furthermore in the NNHTDZ, as in other high-technology zones throughout

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<sup>93</sup> The Yangtze River Delta region includes southern Jiangsu, northern Zhejiang, and Shanghai's metropolitan area.

China (Fan et al., 2009), restrictions on labour mobility on the basis of residence permits (*hukou*) have in practice been eased. As far as the functioning of the labour market is concerned, statist logics are clearly subordinated to systemic capitalist constraints.

The labour market situation within the NNHTDZ has relevant implications for the analysis of benefits distribution. Given the high turnover rate and the generally high level of skills required in the high-tech sector, retention of employees is an overarching concern for companies.<sup>94</sup> The selective allocation of benefit packages aims at stabilizing the most valuable elements of the workforce by providing incentives to tenure to desirable employees.

#### **3.4.1. Data, sampling and research design**

The main aim of the study was to investigate whether the patterns of selective benefits allocations used by companies in the NNHTDZ conformed to the class mechanisms postulated by Wright. The study adopted a mixed-methods sequential exploratory design (an Instrument Development Model) articulated in two sequential phases (Creswell & Plano Clark, 2007). In the first phase of the fieldwork, qualitative data were collected through direct observation, documentary research and face-to-face interviews. The information gathered in the qualitative phase of the study was used to design the survey items that collected data about the forms of benefits received by respondents. More importantly, the information gathered in the first phase of the study was used to develop adequate operationalization of the authority and skill/expertise variables (see Appendix A).

In the second phase of the study, quantitative data were collected from a clustered random sample of white collar employees working for ten randomly selected companies located within the

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<sup>94</sup> The interviewed HR managers almost unanimously supported this point, the only exception being the managers of companies operating in very specialized niches for which there was no local competition. The problem of retention of skilled employees with relevant work experience was a frequent topic of discussions within the Human Resources Working Group of the EUCCC during my attendance. The NNHTDZ administrations is acutely aware of the situation, and it is trying to respond to pressures emanating from the companies through a series of programs aimed at making the NNHTDZ a desirable living environment for skilled managers and professionals. The NNHTDZ is also trying to strengthen linkages between universities located within the zone and companies registered in the NNHTDZ. On both points, see Cucco (2008).

NNHTDZ. In each company, questionnaires were distributed to ten-to-fifteen employees. A total of 125 questionnaires were distributed, of which 99 were returned; listwise deletion was used to discard questionnaires in which key variables were missing, thus leaving 97 complete cases. The features of the sampling design are accounted for in the following analyses through the use of probability weights and clustered robust standard errors.<sup>95</sup>

### **3.4.2. The construction of class variables**

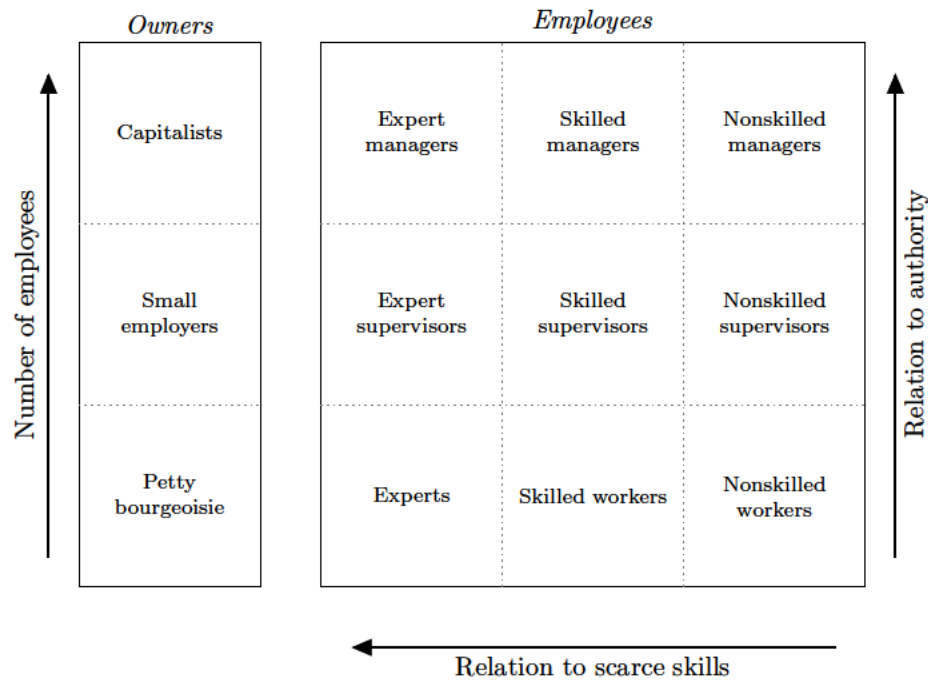
Before proceeding with the analysis, I briefly explain how respondents were assigned to a class location. The two-class scheme used in this paper is based on the twelve-locations map of capitalist class relations proposed by Wright (1997), presented in Figure 3.1. Since the sample only included white collar employees, in this study I only used the nine employee class locations on the right-hand side of Figure 3.1.

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<sup>95</sup> A list of interviews and basic data about the sampled companies are provided in Appendix A. Documentary data were collected from official statistical publications, local newspapers and documents provided by the NNHTDZ administration. During my stay in Nanjing, I also worked for three months as a freelance consultant for the Human Resources department of the NNHTDZ Development Corporation (part of the zone administration) and I regularly participated for six months in the activities of various Working Groups of the European Union Chamber of Commerce in China [EUCCC], Nanjing Chapter.

FIGURE 3.1

Wright's twelve-locations map of capitalist class relations



SOURCE: Wright (1997)

Employees were assigned to a class location on the basis of two indicators: their level of skill/expertise, and their degree of authority in the workplace. The indicator for the skill/expertise dimension combined individual-level data on occupation with company-level data on the degree of specialization of different occupations. The authority indicator was based on individual-level data on occupation and managerial functions, again validated through company-level data.

Given the purposes of the analysis, I aggregated the original nine class locations in two class categories: *working class* locations and *middle class* locations. Following Wright (1997: Chapter 15), working class locations were defined as to include nonskilled workers, skilled workers and nonskilled supervisors. Middle class locations included the remaining class locations (all

managers, all experts and skilled supervisors). Details on the operationalization of the skill/expertise and authority indicators, on the class structure of the sample and on the construction of aggregate class locations are provided in Appendix A.

As explained above, this categorization is appropriate to the aims of the study since it differentiates between white collar employees in privileged appropriation locations and contradictory locations (middle class) and white collar employees who are not (working class). For the former group, strategies of social control are supposed to be based on incentives more than on sanctions. The study will not investigate variations in access to benefits among classes characterized by different levels of skill or authority, but will only focus on the main effect of class location.

### **3.5. Forms of benefits and their class distribution: a descriptive analysis**

This section presents an overview of the benefits utilized by companies in the NNHTDZ and describes their distribution across the two aggregate class locations. A list of benefits utilized by companies in the NNHTDZ as part of their remuneration packages was compiled on the basis of information collected from HR managers (Table 3.1). The list was then included in the survey questionnaire; respondents were asked to indicate all the benefits they received during the last year of employment.<sup>96</sup>

As can be seen from Table 3.1, the range of benefits utilized by companies in the NNHTDZ was quite extensive. Benefits ranged from basic guarantees (paid leave, sick leave and parental leave), to various forms of welfare provision for adversities or old age (pension, healthcare, unemployment and work-related injury funds), to benefits in cash and kind (meals, childcare, training, transportation, communications, housing funds and company trips). Other forms of benefits were

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<sup>96</sup> Building a comprehensive list of the forms of benefits distributed by the companies in the NNHTDZ was one of the reasons for selecting a mixed-methods sequential exploratory design. The interviews with HR managers generated an exhaustive list of benefits; only in one case an employee responded 'Other' when asked to indicate which benefits he or she received as part of the remuneration package.



directly aimed at supplementing wage income (holiday presents, performance bonus). Table 3.1 also includes permanent (*wu guding*) contracts. While not strictly speaking a benefit, permanent contracts provide stricter conditions for termination than other forms of contract (fixed-term contracts, temporary contracts and so on). As noted above, several of these benefits — particularly those more directly related to workers' rights and welfare provision — would hypothetically be mandatory under the current Chinese labour legislation.

TABLE 3.1  
Forms of benefits received by employees in the NNHTDZ

| Benefit                | Description  |
|------------------------|--|
| Childcare              | Childcare facilities or childcare subsidy  |
| Communications         | Allowance for communication costs; company provides mobile, PDA or other device  |
| Company trips          | Free company trips (e.g., to holiday destinations)                               |
| Health insurance       | Participation in the state-run health insurance scheme                           |
| Holiday presents       | Presents (in cash or in kind) for holidays, birthdays and other celebrations     |
| Housing fund           | Contributions to housing fund or participation in company housing buyback scheme |
| Meals                  | Meal allowance; free restaurant/canteen  |
| Paid leave             | Paid annual leave  |
| Parental leave         | Paid leave for parental duties   |
| Pension fund           | Participation in pension scheme  |
| Performance bonus      | Bonuses related to performance and productivity                                  |
| Permanent contract     | Permanent ( <i>wu guding</i> ) contract with stricter conditions for termination |
| Sick leave             | Paid sick leave  |
| Sponsored training     | The employer pays for or provides professional/academic training                 |
| Transport / car        | Company car or transport allowance   |
| Unemployment insurance | Participation in the state-run unemployment insurance scheme                     |
| Work injury insurance  | Participation in the state-run work injury insurance scheme                      |

NOTE: 'state-run scheme' should be read as a shorthand for insurance schemes mandated by labour and welfare regulations. These funds are often, but not necessarily, run by local government agencies.

Table 3.2 reports the distribution of each benefit across the two aggregate class locations, together with the overall distribution of benefits in the sample. Benefits are arranged in descending order, according to their diffusion in the sample. Generally speaking, employees working in the NNHTDZ are relatively privileged if compared to the majority of Chinese workers.

TABLE 3.2

Percentage of respondents who received each benefit, by class location

| Benefits               | Working<br>class | Middle<br>class | Sample<br>total |
|------------------------|------------------|-----------------|-----------------|
| Health insurance       | 91.3             | 92.2            | 91.8            |
| Unemployment insurance | 84.8             | 84.3            | 84.5            |
| Meals                  | 63.0             | 78.4            | 71.1            |
| Work injury insurance  | 69.6             | 64.7            | 67.0            |
| Paid leave             | 58.7             | 64.7            | 61.9            |
| Holiday presents       | 54.3             | 68.6            | 61.9            |
| Parental leave         | 58.7             | 45.1            | 51.6            |
| Performance bonus      | 43.5             | 58.9            | 51.6            |
| Communications         | 30.4             | 64.7            | 48.5            |
| Transport / car        | 37.0             | 56.9            | 47.4            |
| Company trips          | 34.8             | 39.2            | 37.1            |
| Pension fund           | 26.1             | 39.2            | 33.0            |
| Housing fund           | 26.1             | 25.5            | 25.8            |
| Sponsored training     | 15.2             | 27.5            | 21.7            |
| Permanent contract     | 0.0              | 11.8            | 6.2             |
| Sick leave             | 2.2              | 9.8             | 6.2             |
| Childcare              | 2.2              | 5.9             | 4.1             |

NOTE: the table reports the percentage of incumbents of each class receiving a benefit.  $N = 97$ , of which 46 in working class locations and 51 in middle class locations.

First, national-level regulations bar the NNHTDZ from hosting the kind of labour-intensive sweatshops in which labour violations have been more often reported. Second, workers in the NNHTDZ tend to have higher-than-average education and are employed by research- and

technology-intensive companies. Nonetheless, the application of official labour standards and welfare guarantees in the NNHTDZ was far from universal and an assessment of the degree of security enjoyed by workers remains ambivalent.

On the one hand, rates of participation in most of the state-run welfare insurance funds were higher than those reported in previous studies (Duckett, 2001; Duckett, 2004; Solinger, 2002): 91.8 per cent of the sampled employees participated in the state-run health insurance scheme; 84.5 per cent of were covered by unemployment insurance and 67.0 per cent by workplace injury insurance. On the other hand, only 33 per cent of the sample participated in the state-run pension system and an ever lower percentage (25.8 per cent) received contributions to a housing fund. The situation was even more ambiguous with regard to basic workers' rights. While 61.9 per cent of the sample had paid leave, parental leave was available only to the 51.6 of the respondents (32 females and 18 males). Sick leave was even less diffuse, covering a dismal 6.2 per cent of the sample. The distribution of perks and other benefits not covered by labour regulations was quite uneven. If meal allowances and benefits were quite widespread (71.1 of the sample), the vast majority of employees had no access to childcare facilities or benefits.

Differences between the two aggregate class categories were not homogeneous for different forms of benefits. Rates of participation in state-run welfare schemes were rather egalitarian among classes. Only minor class variations were recorded for health insurance (91.3 for white collar employees located in the working class; 92.2 for white collar employees located in the middle class); unemployment insurance (84.8 per cent for the working class, 84.3 for the middle class); work injury insurance (69.6 versus 64.7); and housing funds (26.1 per cent versus 25.5 per cent). The only notable exception was represented by pension funds, which were accessible to 39.2 of middle class incumbents against 26.1 per cent of working class employees. Differences were instead conspicuous for what concerns communications, transports, meals allowances, childcare and sick leave; in all these cases, middle class employees were clearly advantaged. Employees in middle class locations were more likely to receive other forms of benefits as well, although with smaller gaps in the rates of coverage for the two aggregate class locations. Access to parental leave was a significant exception, since it was more diffused among working class locations than

middle class locations. This is clearly a consequence of the skewed gender composition of the two aggregate classes, since women made up 60.9 per cent of the working class and only 33.3 per cent of the middle class. Finally, Table 3.2 confirms that the use of permanent contracts was extremely limited and exclusively reserved to incumbents of middle class locations.

TABLE 3.3  
The three benefits categories used in Poisson analyses

| Category        | Benefits  |
|-----------------|---|
| Career benefits | Health insurance, housing fund, pension fund,<br>permanent contract, sponsored training,<br>unemployment insurance, work injury insurance |
| Perks           | Communications, company trips, holiday presents,<br>meals, performance bonus, transport/car   |
| Basic rights    | Paid leave, parental leave, sick leave  |

### 3.6. Benefits and class location: Poisson estimations

The aim of this section is to investigate the effect of class location on the distribution of benefits among white collar employees, after controlling for the effect of individual-level attributes. In order to reduce the complexity of the analysis, benefits have been grouped into three categories: *career benefits*, *perks* and *basic rights* (Table 3.3). The categorization is guided by Wright's theoretical insights and was performed on the basis of information gained in the course of face-to-face interviews with company managers and representatives of the NNHTDZ.

### 3.6.1. The definition of the three benefits categories

The first category (*'career'* benefits) includes pension fund, housing fund, health fund, sponsored training, permanent contract, unemployment insurance and workplace injury insurance. The rationale for grouping these forms of benefits is that they are related to the concept of 'partial ownership in a job' and to the temporal aspect of class relations.

In terms of job stability, interviews conducted with HR managers suggested that the selective use of sponsored training, housing and pension funds aimed at stabilizing the most valuable employees in a situation characterized by high labour turnover. Sponsored training in particular was seen as one of the key elements for retaining valuable human resources. The company managers I interviewed were unanimously critical of the Chinese university system, which is allegedly unable to promote creative thinking and disregards the development of the 'soft skills' (such leadership, teamwork and innovation) required by the company environment. The same theme emerged in the course of several business workshops and meetings I attended in Nanjing.<sup>97</sup> Within this context, sponsored training signalled the willingness of the company to provide an employee with opportunities for professional development and advancement within the corporate hierarchy.

Training, housing and pension funds are structured so as to provide incentives for continued employment with the company. In the case of housing for example, some enterprises were given the opportunity to purchase housing within the NNHTDZ at heavily discounted prices.<sup>98</sup> Companies in turn allocated this housing to their employees on a free or low-rent basis. After a certain number of years of continued employment with the company, the apartment would become property of the employee. In other cases, housing funds involved the establishment of a fund to which the companies made regular contributions, whose redemption was also linked to continuity of employment. Pension funds, as noted above, can be difficult to transfer to a new employer; funds

<sup>97</sup> The declarations about the limits of the Chinese university system must of course not be taken at face value. Larson (1980) has for example convincingly argued that the devaluation of general education and the emphasis on competences targeted at the aims of the employer is a powerful form of employers' domination over workers.

<sup>98</sup> The difference in prices between commercial and subsidized housing was relevant. At the time of fieldwork, standard housing within the NNHTDZ sold for about 2,500 RMB per square metre. Outside the NNHTDZ, basically across the road, apartments of the same quality sold for about 4,000 RMB per square metre.

accumulated in a pension account were a further incentive to remaining with the company. In the case of training, in most cases employees were required to refund the cost of the training if they left the company before a specified amount of time.

*Career* benefits are also linked to the temporal aspect of class relations. Homeownership and a pension plans provide long-term economic stability and can help consolidate an individuals' privileged class situation. Home ownership in contemporary China also carries clear status implications and has been identified as a one of the major signals of entry into the middle-income class (Tomba, 2004). Sponsored training and opportunities for professional development within the corporate environment increase the bargaining power of an employee on the labour market and can help maintain a predictable career trajectory. Permanent contracts, unemployment insurance and workplace injury insurance are further sources of stability. In a situation characterized by rapidly rising health costs, health insurance can help achieving long-term income security.

The second benefits category (*perks*) includes forms of benefits that can either represent a direct increase in monetary income, or provide access to status-bearing goods and services. In Wright's terms, they signal participation in the redistribution of surplus and can also be linked to the use of income and status differential as legitimating devices. This category includes: performance bonus; company car or transportation allowances; free meals or meal allowances; communication allowances or devices (a free mobile phone or Blackberry, for example); company trips; holiday presents and childcare facilities/allowances.

The last category (*basic rights* benefits) includes benefits linked to the enforcement of basic labour rights. It includes paid leave, sick leave and parental leave.

### **3.6.2. Hypotheses**

In order to assess the effect of class and various individual-level attributes on the distribution of benefits belonging to different categories, a series of Poisson models was estimated. The

hypotheses driving the analysis are discussed in this section. As noted above, according to Wright strategies of social control based on incentives rather than on sanctions are more likely to be used for employees performing jobs requiring a higher degree of skills or for managers exercising delegated capitalist authority over their subordinates. Being part of strategies of social control, benefits can be selectively allocated according to the same underlying logic. It can be expected that benefits signaling a partial ownership in the job and benefits signaling participation in the redistribution of surplus (benefits providing a positive discrimination/advantage wage component) are more likely to be associated with contradictory class locations. Translating Wright's insights into the terminology used in this paper, it can be expected that incumbents of middle class locations will receive proportionally more benefits in the career and perks categories than employees located in working class locations, net of other individual-level characteristics. I therefore tested the following hypotheses:

*Hypothesis 1:* middle class location has a positive effect on the distribution of career benefits

*Hypothesis 2:* middle class location has a positive effect on the distribution of perks

Within the corporate environment of the NNHTDZ, the meritocratic ideology of the high-technology sector is often contrasted to the importance of social connections (*guanxi*) in the state-owned sector.<sup>99</sup> Education appears to have a strong legitimizing effect. At the same time however, the Chinese university system is heavily criticized for its incapacity to produce 'corporate citizens'. In order to analyze the effects of education on the distribution of benefits, I tested the following hypotheses:

*Hypothesis 3a:* years of education have a positive effect on the distribution of career benefits

*Hypothesis 3b:* years of education have a positive effect on the distribution of perks

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<sup>99</sup> Author's interviews. See also Cucco (2008).



The fourth set of hypotheses concerned the role of social networks. Bian (2002) suggested that the use of social networks during the job search process in China creates trust between employer and employee in the absence of formal trust-carrying institutions. For employees, network-mediated trust acts as an informal guarantee against exploitative practices; for employers, network-mediated trust helps choosing which employees to place in positions characterized by authority and autonomy. Bian's interpretation of the role of networks suggests that the use of social networks should be positively related to basic rights (employees who found jobs through social networks should be more protected against exploitative labour practices) and to career benefits (they should be preferred when deciding whom to place on a clear career path). I believe Bian's interpretation of the role of networks overlook the relations between the role of networks in social relations of exchange and the role of networks in social relations of production (see Chapter 4); I do not expect his hypotheses about the trust-carrying role of networks to hold in the case of the NNHTDZ. For this reason, I tested the following hypotheses:

*Hypothesis 4a:* white collar employees who found a job through social networks do not receive more basic rights than white collar employees who did not

*Hypothesis 4b:* having found a job through social networks does not have an effect on career benefits

Finally, in a situation in which great emphasis is placed on forms of training and professional development taking place within the corporate system itself, work experience should be positively related to both career benefits and perks. For this reason, I test the following hypothesis:

*Hypothesis 5a:* work experience has a positive effect on the distribution of career benefits

*Hypothesis 5b:* work experience has a positive effect on the distribution of perks

### 3.6.3. Variables

**Dependent variables:** for each benefits category, I created a count variable equal to the number of benefits in that category that a respondent received in the previous year. Since the same count can be achieved through the combination of different individual benefits, the number of benefits can be interpreted as the degree of achieved job security and stability of the class trajectory (for the career benefits count); the degree to which benefits positively contribute to the privilege/discrimination wage component and contribute to the achievement of income and status differentials (for the perks count); and the extent to which basic labour conditions conform to the legal standard (for the basic rights count).

**Male:** a dummy variable included to control for gender effects.

**Education:** education is a continuous variable built by calculating the years of education normally required to obtain the highest academic degree possessed by a respondent.

**Work experience:** work experience is calculated as current age minus years of education. It is important to notice that work experience is *not* seniority or length of tenure in the current job, but the total number of years spent in the workforce (even if working for different employers). The labour force in the NNHTDZ was quite young and mobile; only 18 of the sampled employees had worked for their current employers for more than ten years.

**Job networks:** this variable accounts for possible effects linked to the capacity to effectively mobilize social networks in the job search process. Respondent were asked to report all forms of assistance they received in obtaining their current job, including active lobbying, referral, the provision of relevant information on the firm or the job, help with the application process and so on. The variable is a dummy coded as 1 if the respondent obtained significant forms of help (referral, lobbying in his/her favour with the employer or significant help with the selection process); and zero otherwise (base category).

**Middle class:** ‘Middle class’ is a dummy variable coded as one if the respondents’ class location is located in the *middle class* category according to Scheme A (see Appendix A, Table A.1).

**Interaction terms:** I included two interaction terms: middle class X years of education and middle class X years of work experience.

### 3.7. Results

This section presents the results of the Poisson estimations for each benefits category. The reader should be reminded that, since the Poisson model is nonlinear, the effect on the dependent variable of a change in an independent variable is not constant but depends on the values of all other variables. Therefore, the coefficients presented in the tables cannot be directly interpreted as slopes — as would be possible for a linear regression model. In order to assess the strength of effects, marginal or discrete changes should be computed for different levels of the independent variables so as to assess the strength of the effects that can be imputed to class and non-class factors. The results of the estimations are presented in Table 3.4. I first discuss the result separately for each benefits category, then draw some comparisons.

#### 3.7.1. Career benefits

Four variables resulted to have a significant effect on the number of career benefits: work experience, middle class location and the two interaction terms (middle class X education and middle class X work experience). The coefficient for the interaction terms was positive. Education did not appear to have a significant base effect on the number of career benefits. The coefficients for work experience and middle class, although significant, had a negative sign.

TABLE 3.4

Results of Poisson estimations for the three benefits categories

|                      | Career              | Perks             | Basic             |
|----------------------|---------------------|-------------------|-------------------|
| Male                 | -0.008<br>(-0.11)   | -0.033<br>(-0.28) | -0.117<br>(-1.30) |
| Education            | -0.017<br>(-0.77)   | 0.264*<br>(2.12)  | 0.134<br>(1.62)   |
| Work experience      | -0.009**<br>(-2.58) | 0.010<br>(0.51)   | 0.002<br>(0.08)   |
| Job networks         | -0.262<br>(-1.85)   | -0.175<br>(-0.98) | -0.308<br>(-1.10) |
| Middle class [MC]    | -2.321**<br>(-2.63) | 1.220<br>(0.86)   | -0.808<br>(-0.31) |
| MC * education       | 0.136*<br>(2.51)    | -0.080<br>(-1.00) | 0.060<br>(0.38)   |
| MC * work experience | 0.023*<br>(1.99)    | 0.020<br>(1.52)   | -0.010<br>(-0.40) |
| Constant             | 1.624***<br>(4.49)  | -3.147<br>(-1.50) | -1.881<br>(-1.33) |
| N                    | 97                  | 97                | 97                |
| AIC                  | 235968              | 264118            | 156431            |
| BIC                  | 235988              | 264139            | 156452            |

NOTE: \* p&lt;0.05; \*\* p&lt;0.01; \*\*\* p&lt;0.001; z-scores in parentheses.

Graphs of predicted probabilities may help making sense of these apparently counterintuitive results. The three panels in Figure 3.2 show the predicted probabilities of receiving five or more career benefits for incumbents of middle and working class locations at the varying of years of education and work experience.<sup>100</sup> The vertical axis represents the expected probability of having received five or more career benefits in the previous year. Years of education are represented on the horizontal axis; they range from 12 years (equivalent to a high school diploma) to 21 years of education (equivalent to a PhD). The probabilities in the top panel are calculated for early career stages (one year of work experience); in the central panel, for employees with average work experience (11 years); in the bottom panel, for employees in later stages of their careers (30 years of work experience). All other variables were held at the sample mean. The dashed lines represent middle class employees; the solid lines represent working class employees.

The graphs show that, for white collar employees in middle class locations at any stage of their careers, the probability of receiving five or more career benefits rapidly increases with education. The upward-sloping dashed lines in the three panels of Figure 3.2 capture the positive and significant effect of the interaction term middle class X education. For white collar employees in working class locations at any career stages, an increase in education does not correspond to an increase in career benefits.<sup>101</sup>

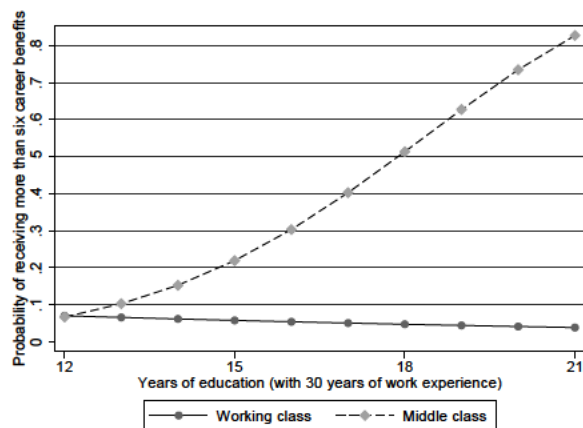
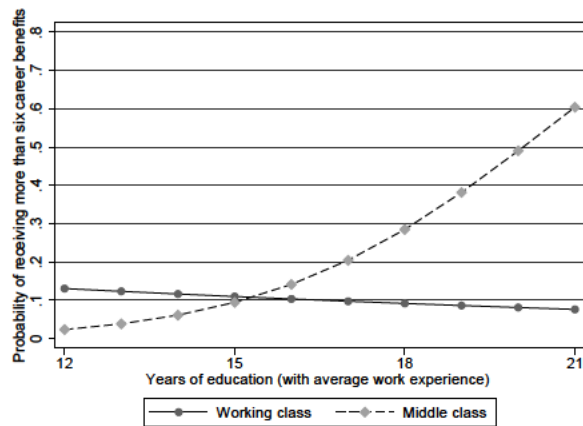
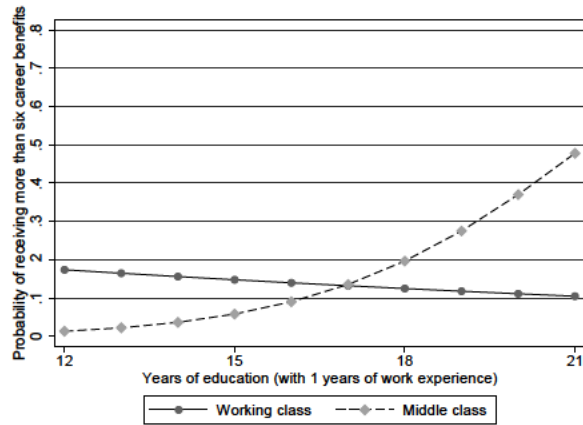
The effect of work experience also significantly varies across class locations. For white collar employees in middle class locations, the predicted probability lines shift upwards and to the left as one proceeds from the top to the bottom panel in Figure 3.2. This means that work experience has a positive effect on the number of career benefits for incumbents of middle class locations, as also shown by the positive and significant coefficient for the interaction term middle class X work experience. On the contrary, the lines shift downward for white collar employees in working class locations; this shift captures the negative and significant base effect of work experience.

<sup>100</sup> Five career benefits is an arbitrary cutpoint chosen for illustrative purposes; it correspond to being in the top 20 per cent of the career benefits distribution. The trends illustrated in Figure 3.2 remain consistent when calculated at lower cut-points.

<sup>101</sup> The predicted probability line appears to slightly slope downwards; however, this effect is not statistically significant as shown by the estimated coefficient for the base effect of education.

FIGURE 3.2

Predicted probabilities of receiving five or more career benefits for incumbent of different class locations, at the varying of years of education and years of work experience



Finally, the graph shows that white collar employees in working class locations appear to have an initial advantage in terms of career benefits over white collar employees in middle class locations with a low level of education (top panel). The point at which the two lines intersect corresponds to a college degree (16 years of education). This apparent advantage rapidly reduces as working experience increases. This pattern explains the seemingly paradoxical negative and significant coefficient of the base effect of middle class. What seems to happen is that white collar employees in middle class locations and little education are penalized at the beginning of their careers. Nonetheless, they appear to be placed on a career path in which work experience compensates to some extent for low education. No similar compensatory effect is available to white collar employees in working class locations; on the contrary, work experience further amplifies their distance from the middle class.

### **3.7.2. Perks and basic benefits**

In the case of perks, the situation seemed less complex. As shown in Table 3.4, the only significant coefficient is the coefficient for years of education, with a positive sign. Gender and the use of job search networks did not have a significant effect, as in all other models. Class location and the interaction terms were similarly non significant. This suggests that access to the number of perks only increased with the level of education, regardless of class location. Finally, none of the variables considered in the model appeared to have a significant effect on the distribution of basic workplace rights.

## **3.8. Discussion**

The results presented above must be taken with caution given the small sample size. Keeping this in mind, results nonetheless suggest that the relations between class location, human capital and forms of benefits are more complex than is generally assumed.

Results seems to confirm hypothesis 1 (a middle class location has a positive effect on the distribution of career benefits), but with some important specifications. As shown in Figure 3.2, white collar employees in middle class locations with low levels of education are disadvantaged in the initial career stages; this disadvantage disappears as work experience increases. The positive effect of a middle class location is more clearly visible when education and work experience rise. Hypothesis 2 (middle class location has a positive effect on the distribution of perks) was instead rejected. So, while the relation between class location and career benefits was largely in accord with Wright's predictions, the same was not true for the relation between class location and the distribution of benefits providing access to income and status-bearing goods.

Similar results were obtained for hypotheses concerning the role of education. Hypothesis 3a (educations has a positive effect on career benefits) was only confirmed for white collar employees in middle class locations. For white collar employees in working class locations, an increase in years of education did not have any impact on the level of career benefits. Hypothesis 3b (educations has a positive effect on perks benefits) was instead fully confirmed. In the case of perks, linked according to Wright to the legitimation of income and status differentials, the role of education could be explained by its legitimating function in a corporate environment that promotes a supposedly meritocratic ideology. The assumption made by standard human capital models that education has homogeneous effects across all segments of the labour market seems problematic to sustain in the light of these results. Furthermore, the effect of education varied for different benefits categories.

The mobilization of social networks for job search did not appear provide any significant advantage in terms of benefits. All hypotheses derived from Bian's interpretation of social networks as an informal substitute for trust-carrying institutions were rejected. If social networks are important, their relevance appears to be limited to obtaining access to a job and not to negotiating better conditions or being otherwise advantaged in terms of career opportunities and additional sources of income.



The role of work experience is similarly complex. In the case of career benefits, work experience was rewarded for middle class incumbents and penalized for white collar employees in working class locations. For this class, work experience appears to be interpreted more as a sign of obsolescence than experience. More than anything, this result suggests the lack of a clear career path for white collar employees in working class locations. If their middle class peers can expect to see their degree of security and stability rise with the progression of their careers, the same is not true when a white collar employee is structurally located in a working class location. This seems to suggest that a clear division is taking place in the workforce, even within the narrow band of occupations investigated by this study: on the one hand, core employees are placed on predictable career trajectories; on the other, less valuable employees have to face a condition of permanent instability. This situation is certainly not specific to China and reflects a global reconfiguration of working relations.<sup>102</sup> It cannot be excluded that the relation between work experience and benefits distribution may be due to cohort effects and depend, for example, on the moment in which job seekers entered the labour market. It must be noted, however, that most respondents had changed jobs several times in the course of their careers and the large majority of them had entered their current occupation (hence, had negotiated the initial terms of their contracts) in the last ten years.

The level of the basic rights considered in this paper did not depend upon individual-level characteristics and class location. This may be due to a homogeneous level of enforcement of basic labour regulations in the NNHTDZ, or to the willingness of individual companies to comply with the law. More research would be needed to answer this question. Finally, gender did not appear to have a significant effect on the level of benefits — as also found in the case of wages (Chapter 2). Women appear to face more a structural barrier to accessing structural locations that provide stability and higher income (women only make up 33 per cent of the middle class as defined in this study), than gender-based discrimination in the levels of security and compensation.

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<sup>102</sup> I thank Anita Chan for this observation.

### **3.9. Conclusions**

Even if limited in many regards, the tentative results of this study reinforce the findings presented in Chapter 2. Class not only has a significant effect on incomes, but also affects the distribution of nonwage benefits even among the narrow occupational group investigated in this study. The disaggregated analysis of benefits shows that the mechanisms governing the distribution of different categories of benefits respond to different logics. The study appears to confirm the interpretation of benefits as forms of social control over labour. As predicted by Wright, class has a significant effect on the forms of benefits that provide security and stability. These benefits are selectively allocated to individuals who exercise delegated capitalist powers or perform functions requiring a higher degree of autonomy.

Perhaps the most important result is that the homogeneity assumption about the effect of education and work experience postulated by human capital theory and endorsed by studies of inequality in post-Mao China is confuted on two levels. First, because of the way in which class location mediates the effects of these individual-level variables. Second, because their effect is not homogeneous across different categories of benefits. By ignoring the mediating effect of class and by adopting an aggregate, income-based view of benefits, the literature on post-Mao China glosses over these crucial differences.

## References

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## ***Introduction to Chapter 4***

In the previous two chapters, I showed how class location affects the distribution of material rewards. This paper shifts to a different topic: the utilization of social networks for job search.

A growing body of literature, inspired by the work of Yanjie Bian, has explored the variations in the use of social networks during the job search process in the course of reforms. Even in this case, however, the use of social networks is mainly seen as a response to informational and market imperfections. Studies of recruitment networks in the labour-intensive industry have however showed that networks perform important function also in production, that they contribute to establishing domination in the workplace and that networks can, in some conditions, provide the basis for effective mobilization.

For this reason, the paper focuses on the variations in the use of job search networks across class locations. Given that no clear theory has been formulated on this point, the study adopts and exploratory technique of data analysis, correspondence analysis (CA). Although a variant of CA has been applied to class analysis by Pierre Bourdieu in *Distinction*, the technique is less common than the statistical techniques used in the previous chapters. I included in the chapter a brief, non-technical introduction to the main concepts of CA and to the interpretation of CA biplots.

The study analyzes the recruitment channels used by white collar employees in different class locations, the forms of help they received through their social networks and the forms of help that they were able to give to other job seekers. The study confirms the presence of class variations in patterns of networks utilization.

## 4. Job search networks and social class

Prior to reforms, jobs in China were bureaucratically assigned. Under the state job allocation system, workers trying to secure a position for themselves in a desirable work unit (*danwei*) would mobilize their social networks to exert influence on job-assigning authorities (Bian, 1997). In the course of the 1990s, the state job allocation system was gradually phased out and labour markets began to emerge. The vast majority of people can now independently search for a job, choose an employer of their liking or remain out of the labour market altogether. In this changed institutional context, do social networks still matter for job search?

A growing body of academic literature has addressed this question (Bian, 1997; Bian, 2002; Hanser, 2002; Huang, 2008; Johnston & Alvarez, 2008; Zang, 2003). This literature has contributed a relational perspective to the study of stratification in China through its emphasis on the ‘socially embedded’ (in the Granovetterian sense) character of the labour market, moving in this way beyond the human capital paradigm underlying much research in the Market Transition school. Nonetheless, the literature has focused almost exclusively on the market processes governing the exchange of labour: if the relational aspects of the labour market get centre stage in research on Chinese job search networks, the relational aspects of the labour process itself are largely neglected. What happens to job seekers *after* they obtain a job — the fact that they enter



into a specific form of social relation, a social relation of production; and the fact that they can be differently located within the social relations of production — seems theoretically irrelevant for understanding the logic of social network mobilization during the job search process. The literature on social networks has in this way entirely overlooked the possibility that class relations (defined in Marxist terms as a specific form of social relations of production) may affect the functioning of job search networks.

This paper fills the gap in the literature by applying for the first time Wright's neo-Marxist class analysis (Wright 1997, 2005) to study class variations in the use of job search networks among white collar employees working for companies located in a Chinese New- and High-Technology Development Zone. Following the class scheme proposed by Wright (1997), individuals were assigned to one of nine employee class locations according to their degree of authority and expertise. The nine employee class locations were then combined into three aggregate class categories (working class, ambiguous locations and middle class).<sup>103</sup> Correspondence analysis was then used to study how white collar employees located in different aggregate class categories mobilized social networks to receive and provide help during the job search process. The interactions between class and non-class factor such as gender, education and career stages were also investigated. The study was conducted in the Nanjing New- and High-Technology Development Zone [NNHTDZ], and utilized a mixed methods research design.

The study found evidence of clear class patterns in job search networks utilization. Class set the fundamental coordinates for the use of social networks; other factors appeared to amplify or moderate the main effect of class. White collar employees in working class locations used networks mostly to exchange information about job vacancies, while white collar employees in non-working class locations more often mobilized networks to receive influence or other active forms of help. Working class employees<sup>104</sup> were more severely penalized by the lack of access to job search networks. Among those who did not utilize networks for job search, middle class

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<sup>103</sup> The use of a limited number of class categories in empirical research is endorsed by Wright, as long as the aggregation respond to the aims of the analysis (see Section 1.2.6 of the Introduction).

<sup>104</sup> In order not to burden the text, in the remainder of the paper the expression *working class employees* will be used as a shorthand for 'white collar employees in working class locations'; *employees in ambiguous locations* will be used to refer

employees could at any stage of their career rely upon various channels of access to employment opportunities; conversely, working class employee could only rely on impersonal market channels. An important finding of the study is that the boundaries of the job search networks mobilized by white collar employees in the NNHTDZ fall within the corporate sector itself — often within the same company. In almost no cases was help given to or received from people not employed in the corporate sector; in particular, the role of state cadres seemed entirely negligible.

#### 4.1. Job search networks in China

The literature on job search networks in China has to date addressed two distinct but complementary sets of questions. On the one hand, the literature has pursued a comparative agenda aimed at uncovering the differences between the use of job search networks in China and in Western capitalist societies. Bian (1997; 2002) set the coordinates of the debate, first of all by questioning the validity of Granovetter's (1973; 1974) 'strength of weak ties' hypothesis in the Chinese institutional context. Bian initiated a research agenda aimed at understanding whether strong or weak network ties were more likely to be mobilized for job search in China and at comparing the resources (influence, information, trust) exchanged on Chinese and Western job search networks. Bian also postulated an intimate linkage between strong network ties and *guanxi*,<sup>105</sup> a conceptualization largely endorsed (although at times with a critical edge) by other authors (Hanser, 2002; Huang, 2008; Zang, 2003).

On the other hand, the literature has focused on variations in the functioning of job search networks within China itself. Internal variations have been explored across two dimensions: the

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to 'white collar employees in ambiguous class locations'; and *middle class employees* will be used to refer to 'white collar employees in middle class locations'. The reader should keep in mind that all the employees who participated in the study were employed in white collar occupations.

<sup>105</sup> *Guanxi* can be defined, following Bian (1997), as 'social relations marked by a strong degree of reciprocity'. The literature on *guanxi* in China is vast and its purview extends well beyond the mobilization of social contacts for job search. Scholars working on job search networks in China refer mostly to the work of Yang (1994) and Kipnis (1997).

temporal dimension (the effect of reforms on pre-reform patterns of networks use) and the sectoral dimension (the presence of differences across labour market segments). Although this paper is mostly concerned with the sectoral dimension, the concepts mobilized to investigate temporal variations need to be discussed first since they provide the foundations for the analyses of sectoral variations proposed in the literature — foundations that, as I argue below, rest on a limited understanding of the role of social networks.

The starting point for most analyses of temporal variations is Bian's observation that, under the state job allocation system, social networks were mobilized primarily to gain influence on job-assigning authorities; information on job openings was instead of little use to job seekers (Bian, 1997). The advantages deriving, according to Granovetter, from the use of weak ties (in particular, access to non-redundant information about job vacancies) were consequently modest in China. Furthermore, Bian found that few job seekers were directly linked to their helpers. Most people were in fact able to reach influential helpers only through the intermediation of individuals acting as network bridges. Since providing support to job seekers was illegal, bridges were more often strong ties than weak ties due to the higher degree of trust and reciprocity associated with the relationship.

As labour reforms unfolded, the question of how job search networks evolved in response to the new institutional conditions became a major point of interest for the literature. In a later study, Bian (2002) unexpectedly found that the mobilization of *guanxi* for job search persisted in the 1990s. He explained the persistence of *guanxi* as a transitional, informal response to the presence of institutional holes in the emerging labour market. Bian argued that different mechanisms were used for job search in the 1990s: hierarchical allocation, market methods and the mobilization of strong or weak network ties. Since the hierarchical job assignment system was evaporating and market mechanisms were still weak, networks offered the best available mechanism to exchange information, bridge trust and enforce obligations between employers and job seekers.

Bian's explanation for the persisting role of *guanxi* is firmly rooted in neo-institutional economics — as much as his conceptualization of networks borrows from new economic sociology

and social capital theories.<sup>106</sup> The use of *guanxi*, and more generally of networks, is seen as a rational response to imperfect information, institutional uncertainty and contract enforcement problems (see in particular Bian, 2002: 128-133). Although other authors have contested the results obtained by Bian or specified limits to their validity, their analyses remain bound to the same theoretical horizon.

Hanser (2002) for example found that the use of *guanxi* had declined in the aftermath of labour reforms, particularly among young urbanites and first-time job seekers with highly marketable skills. According to Hanser, *guanxi* were becoming less important for accessing highly skilled occupations for two main reasons. First, qualified employees possessed highly marketable skills; for this occupational group, access to job-specific information was more important than influence. Second, skilled job seekers were interested in information that could not be easily accessed through their proximate *guanxi* networks. Differently from unskilled workers, who were primarily concerned with wages and working conditions, professionals and other skilled job seekers based their employment choices on elements such as career prospects and the company environment. This job-specific information was only available through professional networks that could be built at later stages of the career. Hanser finally found that information exchange was based on lighter forms of relations, relations that did not necessarily imply the elements of reciprocity and mutual obligation associated with *guanxi*.

Huang (2008) similarly found that the use of *guanxi* depended on the ownership, desirability and skill requirements of a job. The use of *guanxi* was more widespread for highly desirable jobs. *Guanxi* were also important for jobs requiring the possession of 'soft' skills — jobs in which performance was hard to measure, quantify and monitor. Similar results were obtained by Zang (2003), who found a negative relation between educational level and *guanxi* use among first-time job seekers. People with a college degree were less likely to use social networks in job search; conversely, *guanxi* were more frequently used by people whose fathers were cadres and professionals (a proxy for network connectedness).

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<sup>106</sup> Granovetter's notion of embeddedness, Coleman's social exchange theory and Nan Lin's social resources theory are crucial to Bian's theorization of social networks.

Huang, Henser and Zang argue that the use of *guanxi* and, more generally, of job search networks ultimately depends on the nature of the occupation. Nonetheless, the mechanisms postulated to explain occupational variations are essentially the same mobilized by Bian to explain temporal variations: job search networks are in both cases conceptualized as a rational, embedded and informal response to institutional imperfections. Thus, Hanser explains the declining use of *guanxi* and the concurrent preference for weak ties among young professionals as a response to the limited amount of job-specific information available through strong network ties. Huang interprets the use of networks for 'soft' skill jobs as a response to monitoring difficulties: networks carry trust, thus reducing transaction costs and informational asymmetries. For Zang, strong ties are more useful in spreading information about job vacancies because the helper is better able to match the skills of the job seeker with the requirements of the job. All these accounts are related to what Fernandez et al (2000) call the 'better match' hypothesis: social networks are primarily the means through which employers and employees obtain reliable information about each other *prior to employment*, thus increasing the possibility of achieving a mutually satisfactory match.

At the same time, the notions mobilized to explain occupational variations (market conditions and market capacity) pertain to the social relations of exchange, not to the social relations of production (as would, for example, the notions of exploitation and domination). The quoted authors focus in fact on the subjective 'desirability' or 'hotness' of a job or on the different market capacity of job seekers (the marketability of their skills or their educational level). Although in none of the works discussed above the authors use the word 'class' or adopt an explicitly relational class paradigm as the basis for theorizations and predictions about the functioning of job search networks, their accounts are closer to the Weberian conceptualization of social class as market capacity than to the (neo-) Marxist concept of class as the location of individuals in the social relations of production.

A growing body of literature suggests instead that the study of job search networks cannot be conceptually separated from the analysis of the relations of domination and exploitation established in the place of production. In her research on illegal construction workers in China, Swider (2008) found that different recruitment networks were associated to different employment

conditions; the relational forms mobilized for job search influenced the degree of protection or exploitation of workers inside the construction site. Ching Kwan Lee (1998; 2007) and Pun Ngai (Pun, 2005) have argued that, under the despotic factory regime prevalent in labour-intensive sectors, recruitment networks contribute to the domination of workers, although they can in some cases become the basis for collective action. Recruitment networks reproduce village patriarchal relations on the shop-floor and in the dormitory, thus contributing to the creation of a docile and easily dominated labour force. Recent research by Protta and Beresford (2012) suggests that recruitment networks operate as mechanisms of control over the labour force also outside the specific conditions of the dormitory regime. Their study of rural commuters employed in Cambodia's textile factories found that recruitment networks reproduced and extended the factory's hierarchy in the sending communities. Erickson (2001) has further argued that employers are able to appropriate not only the labour power of workers, but also the power of their social connections. Employers not only hire *through* networks, but also *for* networks: particularly for high-ranking jobs, the employer can benefit from the social connections of their employees.<sup>107</sup>

This research suggests that the mobilization of social networks during the recruitment process is not exclusively determined by the logic of exchange. Recruitment networks can in fact become one of the means through which the social relations of exploitation and domination are reproduced and reinforced both within and outside the shopfloor. If recruitment networks are related to the mechanisms of exploitation and domination operating in the place of production, a relational analysis of the labour market should be accompanied by a relational understanding of the labour process. Due to its exclusive focus on the informational asymmetries and the institutional imperfections of the labour market, the literature on job search networks in China misses this important link.

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<sup>107</sup> This was certainly the case in the NNHTDZ. Several of the HR managers I interviewed said that they were actively looking for employees with relevant experience in the state sector. The company could in fact benefit from their better understanding of the functioning of the local state machine, as well as from their social connections in the government sector. According to the same logic, government departments acting as an interface with the business sector (including the NNHTDZ administration itself) were trying to hire employees with relevant experience in the private sector. In both cases social networks were certainly valued in themselves, since both companies and government agencies expected to benefit from their employee's social connections.

## 4.2. A class approach to the analysis of job search networks

The literature on job search networks in China suggests that there are contrasting patterns of network use among different occupational groups and in different segments of the labour market. Nonetheless, the relation between class location and job search networks has never been directly investigated. Differently from previous approaches, this study adopted an explicitly relational class paradigm (Wright's class analysis) as the basis for investigation of variations in the use of job search networks across different segments of the white collar employees population.

The neo-Marxist class analysis developed by Erik Olin Wright (Wright, 1979; 1985; 1997; 2005) aims at developing a concept of class able to capture the presence of intermediate (i.e., non-capitalist, non-proletarian) class locations in the capitalist class structure while being consistent with the theoretical foundations of Marxist class analysis. Wright's class analysis is based on a *relational* concept of class: class locations are defined through their relation to other classes, not as *gradational* positions on a relative ordering scale based on some measurable indicator such as income, occupation or education (Crompton, 2008; Ossowski, 1998; Wright, 2005). In Wright's class analysis, class relations are a specific form of social relations of production — social relations of production characterized by the unequal distribution of rights and powers over the resources used in production. Within this framework, class locations are ultimately defined by the position of individuals in the relations of exploitation and domination generated by the unequal distribution of rights and powers over productive resources. In this sense, Wright's analysis is distinctively Marxist and differs conceptually from Goldthorpe's class analysis (R. Erickson & Goldthorpe, 1992; Goldthorpe, 1987) that, although relational, defines class on the basis of market conditions and employment situation. By using Wright's class analysis as the basis for this study, I aimed at capturing the effect of mechanisms operating at the level of the social relations of production on the functioning of job search networks.<sup>108</sup>

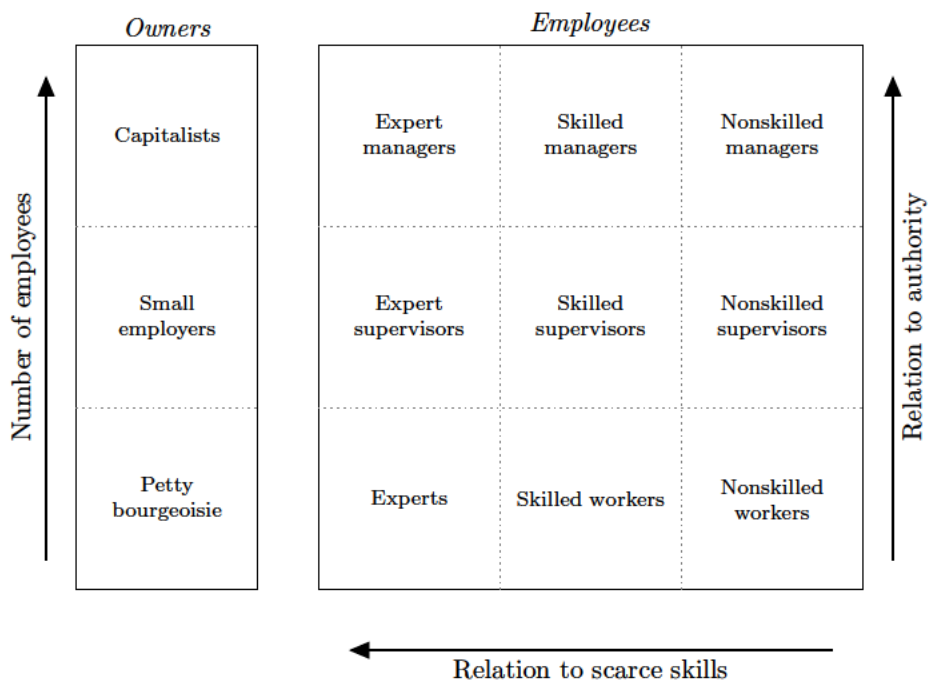
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<sup>108</sup> Particularly when studying the class location of employees, at the empirical level there is little difference between Goldthorpe's class scheme and Wright's class scheme (on this point see for example Wright, 1997). I think however that Wright's class analysis is to be preferred in the case of China, particularly because it provides a coherent theoretical framework for analyzing class in non-capitalist societies and in societies characterized by the coexistence of different modes of production. Such would be the case of China, in which capitalist elements coexist with the legacies of the planned economy. In Goldthorpe's analysis, social classes can only be conceived of in market societies.

One variant of Wright's analysis of the capitalist class structure — the twelve-locations map proposed in *Class Counts* (1997) — was used to define the disaggregate employee class locations from which the aggregate class categories used in the study were built (Figure 4.1). In this version of Wright's class analysis, three dimensions capture the location of individuals in the social relations of production: the ownership of the means of production; the degree of autonomy on the workplace (captured by the level of skills and expertise associated with a job); and the degree of authority over other employees. Since all survey respondents were white collar employees, I only used the nine employee class locations on the right-hand side of Figure 4.1.

FIGURE 4.1

Wright's twelve-locations map of capitalist class relations



SOURCE: Wright (1997)

Respondents were assigned to a class location on the basis of two indicators: their level of skill/expertise and their degree of authority in the workplace. The indicator for the skill/expertise



dimension combined individual-level data on occupation with company-level data on the degree of specialization of different occupations. The authority indicator was based on individual-level data on occupation and managerial functions, again validated through company-level data. Details on the operationalization of the skill/expertise and authority indicators are provided in Appendix A.

Given the exploratory nature of the analyses performed in this study and given the lack of clear theories about the linkage between class locations and job search networks, the aggregate class categories were built with the aim of obtaining a relatively pure definition of the working class and of the middle class. In this way, it would be easier to identify patterns of divergence between white collar employees in working class locations, and white collar employees unequivocally located in privileged appropriation locations or contradictory class locations. For this reason, the aggregate class scheme (Scheme B in Appendix A, Figure A.2) differs from the scheme used in Chapter 2 and Chapter 3, which only included two class categories. In this case, the reduced class scheme includes three class categories called *working class*, *ambiguous locations* and *middle class*.

The working class as defined in this study only included nonskilled workers, while the middle class included those locations unambiguously separated from the working class on at least one of the skill/expertise and authority dimensions (all managerial and expert class locations). The remaining class locations (skilled supervisors, skilled workers and nonskilled supervisors) were assigned to the ambiguous locations, since these locations were not unambiguously separated from the working class on any of the two class-relevant dimensions. A description of the class structure of the sample and details on the definition of the aggregate class locations are provided in Appendix A.

No clear theories have been formulated on the relation between class location and job search networks, nor can I at this stage propose any well-developed hypothesis. For this reason, I concentrated on the description and interpretation of the association between class location and job search networks rather than on statistical modeling and formal hypothesis testing. Given the exploratory character of the study and the categorical nature of most variables, correspondence analysis (CA)

appeared as the ideal tool for these aims. CA is a versatile technique to visualize patterns of association between two or more categorical variables in a variety of plots (maps). The mathematical theory behind CA and its computational aspects are rather complex matters; suffice here to say that CA, as many other multivariate methods, is mainly based on the singular value decomposition of a data matrix.<sup>109</sup> The interested reader is referred to classic texts such as Greenacre (1984; 2007) and Lebart et al. (1984). A brief non-technical introduction to the terminology and interpretation of CA is provided in the next section.

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<sup>109</sup> CA is therefore similar to other multivariate methods such as principal component analysis and canonical correlation analysis.

### 4.3. Correspondence analysis and biplots: a brief introduction

The starting point for CA is generally a cross-tabulation of two or more categorical variables.<sup>110</sup> As a way of illustration, Table 4.1 presents a cross-tabulation of real data taken from my Nanjing survey; the rows represent class locations and the columns represent the highest academic degree obtained by respondents (coded as an ordinal variable with three levels). The first step in CA is to generate *profiles* from the raw frequencies provided in Table 4.1. Profiles are sets of relative frequencies obtained by dividing cell frequencies by the corresponding row or column total. Table 4.2 presents the *row profiles* for the data in Table 4.1; for example, the row profile for the *middle class* ([0.05 0.77 0.18]) has been obtained by dividing the original frequencies ([2 34 8]) by the row total (44). The numbers in the row profile can also be expressed as percentages: among the incumbents of middle class locations, five per cent has a below-college degree, 77 per cent has a college degree and 18 per cent has a post-graduate degree. The *average row profile* is the profile of the last row of Table 4.1; the average profile is calculated over the entire sample by dividing the total frequency for each column ([12 74 11]) by the total number of observations (97, in this case). *Column profiles* are calculated in a similar fashion.

TABLE 4.1  
Crosstabulation of class location and academic degree

| Class location       | Below<br>college | College<br>degree | Post<br>graduate | Row<br>totals |
|----------------------|------------------|-------------------|------------------|---------------|
| Working class        | 9                | 16                | 1                | 26            |
| Ambiguous locations  | 1                | 24                | 2                | 27            |
| Middle class         | 2                | 34                | 8                | 44            |
| <i>Column totals</i> | 12               | 74                | 11               | <b>97</b>     |

<sup>110</sup> The terminology used in this section is based on Greenacre (M. Greenacre, 2007)

TABLE 4.2  
Row profiles obtained from the data in Table 1

|                            | Below       | College     | Post-       | Row         |
|----------------------------|-------------|-------------|-------------|-------------|
| Class location             | college     | degree      | graduate    | total       |
| Working class              | 0.35        | 0.61        | 0.04        | 1.00        |
| Ambiguous locations        | 0.04        | 0.89        | 0.07        | 1.00        |
| Middle class               | 0.05        | 0.77        | 0.18        | 1.00        |
| <i>Average row profile</i> | <i>0.12</i> | <i>0.76</i> | <i>0.11</i> | <i>1.00</i> |

NOTE: the row totals showed in the table do not necessarily sum to 1.00 due to rounding.

*Vertex points* or *vertices* represent hypothetical profiles located at the extreme corners of the profile space. Vertices are often included in CA plots since they provide a point of reference for interpreting the positions of profiles in the profile space. In the case of Table 4.2, focusing again on the row analysis, we would be interested in the three *column vertex points*. The first column vertex would have (row) profile values [1.00 0.00 0.00]; it would correspond to a hypothetical class location whose incumbents only have below-college degrees. The second vertex would have values [0.00 1.00 0.00], and would represent a hypothetical class composed only by individuals with a college degree. Similarly, the third vertex ([0.00 0.00 1.00]) would correspond to a class of postgraduates.

Continuing to focus on the analysis of rows, each row profile is associated with a quantity called *mass*. A mass is a weight built by dividing the row frequency by the total number of observations. In practice, categories with a higher row sum will have a proportionally higher mass. The same reasoning applies to columns, and *column masses* are calculated in a similar fashion.

*Inertia* is a statistic used in CA to estimate how much the row (or column) profiles deviate from the average row (or column) profile. For the data reported in Table 4.2 for example, it is clear

that the relative frequency of working class employees with a below-college degree (0.35) is higher than the average relative frequency (0.12); at the same time, the relative frequency of working class employees with a postgraduate degree (0.03) is lower than the average (0.11). The deviation between the expected frequencies (i.e., the frequencies calculated under a hypothesis of homogeneity of the row and column profiles) and the actually observed frequencies is measured by the *chi-square statistics* ( $\chi^2$ ). The *total inertia* of a contingency table is defined as the  $\chi^2$  statistics divided by the total number of observations. Inertia is one of the key concepts of CA. Total inertia measures how much variation there is in the data; it is therefore of great help in interpreting results. In data tables with high total inertia, profiles (or at least some of them) substantially deviate from the average; conversely, in tables with low total inertia deviations from the average are less pronounced. Total inertia can be decomposed along different dimensions (such as cells, rows, columns, principal axes and so on) to identify which elements contribute the most to variation.

After having introduced the key numerical indicators used in CA, it is time to turn to the interpretation of CA plots. In practice, CA is often used to visualize a reasonably approximated representation of the profiles in a two-dimensional plot. The main aim of CA is to reduce the dimensionality of a table with minimal loss of information by projecting the profiles points on a best-fitting line called *principal axis*. Several principal axes are identified by CA; they are referred to as *first principal axis*, *second principal axis* and so on. The quality of a low-dimensional display (i.e., its capacity to capture the degree of variation in the data) can be assessed through the decomposition of inertia along its principal axes. Each of the principal axes represented in a CA plot captures part of the total inertia; these partial inertias can be summed and expressed as a proportion of the total inertia (generally in permills). The closer the sum of partial inertias is to 1000, the better the quality of the display; otherwise said, the error of the display can be expressed as the proportion of inertia that cannot be captured by the chosen principal axes. Inertia can be further decomposed across rows and columns; it is in this way possible to estimate which categories contribute more heavily to variations along each of the principal axes used in the display.

Several types of plots are used to present the results of the CA, each with its own advantages and limitations. A discussion of the characteristics and interpretation of different CA plots is

beyond the scope of this article; I will here only focus on the interpretation of the so-called *standard CA biplot*, which is used in the rest of the paper. The standard CA biplot represents on a single plot the row profiles and the column vertices (the hypothetical extreme categories).<sup>111</sup> The interpretation of the standard CA biplot is based on the projection of the row points on lines pointing from the plot origin in the direction of the column vertex points. So, what counts in the analysis of a CA biplot is not the distance between row and column points, but the scalar products of the row and column vectors — in turn linked to the length of the vectors and to the angles between them.

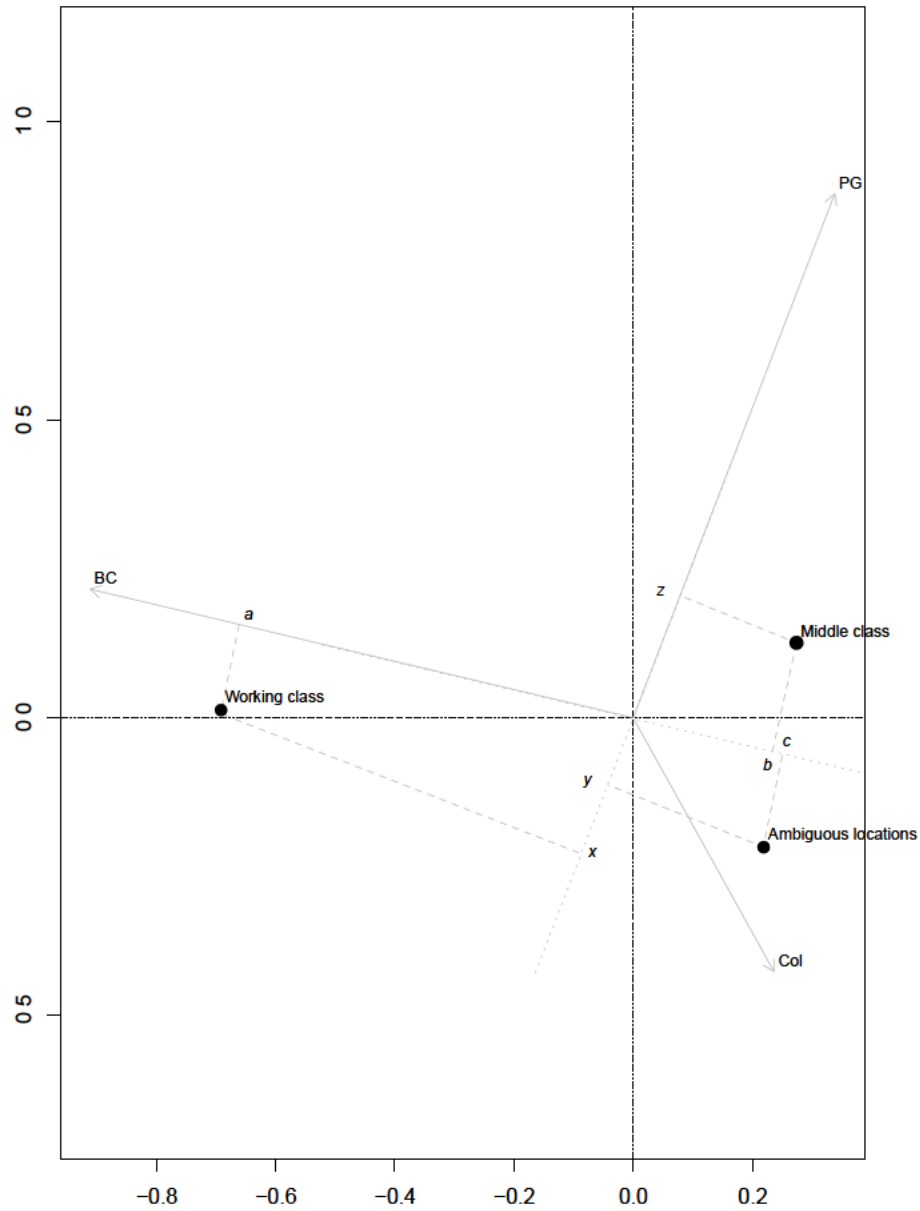
As an example, Figure 4.2 presents the standard CA biplot of the data in Table 4.1. Following common practice, the row profiles are represented as points and the column vertices are represented as arrows; this convention facilitates the interpretation of the plot in terms of scalar products. The dashed lines represent the projections of the row profiles (aggregate class locations) on two of the directions identified by the column vertices (academic degrees). The column vectors have been prolonged beyond the origin with dotted lines; the positive direction is indicated by the arrow. As can be seen from Figure 4.2, the relative alignment of the row points projections on the BC (below college) direction shows that working class employees (projection point *a*) have the highest profile element (they have a higher than average number of below-college degrees), while employees in ambiguous and middle class locations have rather similar values (points *c* and *b* respectively), both located on the negative side of the BC direction. Along the PG (postgraduate) direction, middle class employees have the highest profile (projection point *z*), followed by employees in ambiguous locations (point *y*) and finally by working class employees (point *x*), who both have lower than average relative frequencies of postgraduates.

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<sup>111</sup> More specifically, the standard CA biplots used in this paper have been produced according to the method proposed by Greenacre (2007: Chapter 13). In CA terminology, rows are represented in *principal coordinates* (i.e., row points represent the projection of the row profiles on the principal axes of the plot), and columns are represented in *standard coordinates* (i.e., column points represent the coordinates of the column vertices with respect to the principal axes) multiplied by the square root of the column masses.

FIGURE 4.2

Standard CA biplot of the data in Table 1 (class and academic degree)



NOTE: rows (class location) in principal coordinates; columns (academic degree) in standard coordinates multiplied by the square root of the column mass (see Greenacre 2007: Chapter 13). BC: below college; Col: college; PG: postgraduate degree.

The dimensions identified by the two principal axes can be also interpreted in a fashion similar to factor analysis. The first principal axis (the horizontal dimension) distinguishes between individuals with below-college education (on the left) and individuals with above-college qualifications (on the right). Between the latter group, the second principal axis (the vertical dimension) distinguishes between people with graduate degrees and people with postgraduate degrees.

Having presented the rudiments of CA, it is now possible to proceed with the analysis of the data on job search networks in the NNHTDZ. The next section briefly introduces the NNHTDZ and the dataset. The following three sections present the analyses of recruitment channels, help given and help received through networks by employees in different class locations. Differently from the previous literature (such as Bian, 2002), in which networks are considered a recruitment channel in their own right alongside markets and hierarchical mechanisms, I analyzed recruitment channels and social networks mobilization separately. It was in this way possible to assess which forms of help were received by people recruited through different channels. All calculations and plots were produced using the statistical software R (R Development Core Team, 2010) and the R package *ca* (M. J. Greenacre & Nenadić, 2010; see also Nenadić & Greenacre, 2007).

#### **4.4. Data and study location**

The relation between class location and job search networks was investigated through a study of white collar employees working for companies located in the Nanjing New- and High-Technology Development Zone [NNHTDZ]. The NNHTDZ is located in Nanjing, the capital of Jiangsu province. The NNHTDZ is one of the 53 (as at the time of writing) state level New- and High-Technology Development Zones (hereafter high-tech zones). High-tech zones are bounded industrial areas with a high concentration of research- and technology-intensive enterprises, often operating in partnership with local universities and research institutions. After the promulgation of the new Tax Enterprise Law of the People's Republic of China in 2007, high-technology enterprises are among the main recipients of tax facilitations in China. Given their sectoral specialization,



high-tech zones appear well placed to reap the benefits of the new tax regime and to attract further investment (foreign and domestic) in their core sectors.

Data for the study were collected during twelve months of fieldwork undertaken between 2008 and 2009. The case study was articulated in two components. The study adopted a mixed-methods sequential exploratory design (an Instrument Development Model) articulated in two sequential phases (Creswell & Plano Clark, 2007). In the first phase of the fieldwork, qualitative data were collected through direct observation, documentary research and face-to-face interviews. The information gathered in the first phase of the study was used to design items to be included in the survey instrument and, more importantly, to develop adequate operationalization of the authority and skill/expertise variables (see Appendix A). In the second phase of the study, quantitative data were collected from a clustered random sample of white collar employees working for ten randomly selected companies located within the NNHTDZ. In each company, questionnaires were distributed to ten-to-fifteen employees. A total of 125 questionnaires were distributed, of which 99 were returned; listwise deletion was used to discard questionnaires in which key variables were missing, thus leaving 97 complete cases.

The sections of the questionnaire concerning the use of job search networks collected information on the channels of entry into the current occupation; on the various forms of help received for accessing the current job (such as referral, information about the vacancy, help with the application process and so on) and on the relation of respondents to their helpers; on the sources of information about the current job (ranging from salary to corporate culture to opportunities for professional development); on the help given by employees to other job seekers and on their relations to the people they helped.

This study is based on a randomly selected representative sample of the NNHTDZ employee population. It therefore differs from most previous analyses of occupational variations in the use of job search networks, which were based on non-random samples built through a combination of convenience sampling, purposive selection and snowball sampling in different locations (Bian, 2002; Hanser, 2002; Huang, 2008). A list of the qualitative interviews and details of the

sampling scheme are provided in Appendix A.

#### **4.5. Labour markets, recruitment channels and job search networks**

White collar employees working in the NNHTDZ represent a relatively privileged section of the Chinese labour force with a higher than average level of education. On the one hand, the rather tight enforcement of national-level regulations bars the NNHTDZ from hosting the sweatshops in which labour rights violations have been more often reported. On the other hand, the labour market is very competitive. The vast majority of the managers I interviewed complained about high turnover rates among skilled employees with relevant work experience; these were particularly high among professionals and managers. This is due to competitive pressures emanating from other development zones in Nanjing with a similar sectoral specialization, as well as from the presence of well-established high-tech clusters in the Yangtze River Delta Region such as Suzhou, Kunshan and Shanghai itself.

A variety of recruitment channels were available to enterprises in the NNHTDZ. Most companies relied extensively on newspaper advertisement and specialized websites for their recruitment needs. Several employment and staffing companies operated in Nanjing at the time of the fieldwork — some of them private or foreign-invested, other state-owned (such as FESCO). The NNHTDZ also provided recruitment, training and HR services to the companies located within the zone through its HR department, and was working on further strengthening its offer through conventions with external service providers. Most companies were actively promoting the use of referrals. Generally, referrals were encouraged through some form of monetary compensation; the most widely diffused scheme was to compensate the referrer with the equivalent of one month's salary if the referral was hired and remained in the company for more than one year.

A list of all the recruitment channels used in the NNHTDZ was generated from the face-to-face interviews with HR managers performed in the first phase of the study. Survey respondents

were then asked to indicate through which channel they were recruited into their current job; responses are tabulated in Table 4.3.<sup>112</sup>

TABLE 4.3  
Recruitment channels used by the sampled employees

| <i>Recruitment channel</i>                 | Freq | Percent | Category |
|--|------|---------|----------|
| Referral                                   | 26   | 27.37   | Referral |
| Career website                             | 23   | 24.21   | Market   |
| Company website                            | 11   | 11.58   | Market   |
| Job fair                                   | 11   | 11.58   | Market   |
| After an internship in the company         | 5    | 5.26    | Internal |
| After stage / project with company partner | 4    | 4.21    | Internal |
| Introduced myself to the employer          | 4    | 4.21    | Direct   |
| After merger / acquisition                 | 3    | 3.16    | Internal |
| Employment agency                          | 3    | 3.16    | Market   |
| Contacted by the employer                  | 3    | 3.16    | Direct   |
| On campus fair                             | 2    | 2.11    | Market   |
| Total                                      | 95   | 100.00  |          |

For the CA analyses in the remainder of the paper, I aggregated the recruitment channels in four categories (reported in the last column of Table 4.3). The first category (*referral*) only included employment through referral. The second category (*market*) included recruitment through impersonal market channels: job fairs, on campus fairs, employment agencies, career websites and responding to an advertisement posted on the company website. The third category (*internal*) aggregated forms of recruitment based on a pre-existing formal relation with the company. These were: recruitment after an internship; recruitment after a stage or project with a partner institution (in the NNHTDZ, this often meant being employed after participating as an undergraduate or postgraduate student in a project co-financed by the company and a partner university);

<sup>112</sup> Information on recruitment channels was missing for two observations. Unless otherwise indicated, the analyses presented in the rest of the paper are based on 95 complete cases.

and recruitment of employees working for a company that merged with or was acquired by the current company (for example, a joint venture between a foreign company and a Chinese company that retained part of the original workforce of the partner companies). Finally, the fourth category (*direct*) included recruitment through direct contact between employer and employee in the absence of a publicly advertised job opening. Examples of these channels were people who actively proposed themselves to an employer or received a direct job offer from an employer. Descriptive data on the use of different recruitment categories are reported in Table 4.4.

TABLE 4.4  
Recruitment channels used by the sampled employees (aggregate categories)

| Recruitment channel | Freq | Percent |
|---------------------|------|---------|
| Market              | 50   | 52.63   |
| Referral            | 26   | 27.37   |
| Internal            | 12   | 12.63   |
| Direct              | 7    | 7.37    |
| <i>Total</i>        | 95   | 100.00  |

About 27 per cent of the respondents were hired through referral, which was the single most used recruitment method (Table 4.3). Nonetheless, impersonal market channels were used by more than half of the employees in the sample (Table 4.4). The use of methods other than referrals and impersonal market channels was relevant, covering about 20 per cent of the cases. Although not based on referrals nor on strictly impersonal market channels, direct and internal recruitment methods should not be confused with Bian's *hierarchy*.<sup>113</sup> Rather, they represent cases characterized by two simultaneous conditions: (1) the job vacancy was not publicly advertised; (2) a direct

<sup>113</sup> Bian refers with this term to employment through 'hierarchical allocation/reallocation by state or work-unit authorities that give little personal freedom to search for jobs' (2002: 120). Bian's description could theoretically apply to the three employees in my sample who were recruited after a merger or acquisition. According to my interviews with the managers of joint ventures between foreign partners and Chinese state-owned enterprises however, the employees of the Chinese company were always given a chance to seek employment elsewhere if they wanted to. The problem seemed to be the opposite, with the JV feeling burdened by overstaffing. In three cases, the JV was allowed to 'restructure' its work force after a certain number of years; this invariably resulted in massive lay-offs.

contact existed between the employer and the employee. In the case of *internal* recruitment channels, the contact was established through a prior formal involvement of the employee with the company's working environment (be it within the company itself as in the case of an internship, or through activities in which the company was directly involved as in the case of a research project co-shared with a university). In the case of *direct* methods, the contact had a more personal character and required some degree of familiarity between the employer and the employee. In the case of an employer directly approaching someone with a job offer, this certainly meant that the employer or one of its representatives personally knew the potential employee. In the case of a candidate approaching the company with a job offer, familiarity could either mean a personal connection or familiarity with the company's operation and employment requirements.<sup>114</sup>

Regardless from the recruitment channel, employees could mobilize their social networks to receive help in the recruitment process. To investigate how social networks use was associated with different recruitment channels, respondents were asked to indicate whether someone had given them substantial help with accessing the current job. The questionnaire explicitly mentioned some forms of assistance that helpers could give to applicants, such as acting as a referrer, lobbying the employer or providing substantial help during the selection process (for example, by giving the applicant insider information about selection procedures or the characteristics valued by the employer). Providing information about the job opening was not included among the substantial forms of help received through networks.<sup>115</sup>

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<sup>114</sup> In three of the four cases in which an employee approached the company, it was to apply for high-level managerial positions. We are thus not talking about, say, workers enquiring whether there was some casual work available in a construction site.

<sup>115</sup> A separate section of the questionnaire collected detailed information about the paths of access to different forms of information about the job, including information about job vacancy. Data about information networks are not analyzed in this paper. It is important to note that, for employees in the NNHTDZ, information and active help appeared to travel together in most of the cases. Only in three cases (out of 35) employees used their networks to receive information on vacancies but no other substantial forms of help.

TABLE 4.5  
Help received through social networks, by recruitment channels

| Recruitment channel | No help                     | Help                        | Total                        |
|---------------------|-----------------------------|-----------------------------|------------------------------|
| Market              | 46<br>(92.00)               | 4<br>(8.00)                 | 50<br>(100.00)               |
| Internal            | 9<br>(75.00)                | 3<br>(25.00)                | 12<br>(100.00)               |
| Referral            | 0<br>(0.00)                 | 26<br>(100.00)              | 26<br>(100.00)               |
| Direct              | 6<br>(85.71)                | 1<br>(14.29)                | 7<br>(100.00)                |
| <i>Total</i>        | <i>61</i><br><i>(64.21)</i> | <i>34</i><br><i>(35.79)</i> | <i>95</i><br><i>(100.00)</i> |

NOTE: row percentages in parentheses

A cross-tabulation of help received through networks and recruitment channels is provided in Table 4.5. Overall, 34 employees (36 per cent of the sample) had received substantial help through their social networks. In 26 of the 34 cases, social networks mobilization coincided with the use of referrals. The use of social networks was instead rarely associated with impersonal market channels (only eight per cent of employees recruited through markets received substantial help through their social networks). Conversely, substantial forms of help were received through social networks by 25 per cent of employees recruited through internal channels. If we assume that all employees recruited through direct channels also relied on the effective mobilization of their social networks (although five of them did not report receiving help from anyone, they could have still been advantaged by the presence of a personal connection or familiarity between them and the employer), a total of 40 employees mobilized their social networks during job search (equal to 42 per cent of the sample).<sup>116</sup> As can be seen from Table 4.6, in 59 per cent of the cases the external

helpers were linked to the employing company. In the vast majority of the cases, this was through a direct link (the helpers were either current or former employees of the company). In three cases, they were friends or relatives of a current company employee.

TABLE 4.6  
Relation between the helper and the employing company

| Relation                     | Freq      | Percent       |
|------------------------------|-----------|---------------|
| Current / former employee    | 17        | 50.00         |
| Bridge to a current employee | 3         | 8.82          |
| Other / none                 | 14        | 41.18         |
| Of which state cadres        | 1         |               |
| <i>Total</i>                 | <i>34</i> | <i>100.00</i> |

In only 41 per cent of the cases help was obtained from people who were not directly linked to the company or to company employees. It is however important to note that only in one case the helper was a state cadre. Thus, the social networks mobilized for job search were mostly tied to the corporate environment.<sup>117</sup> Relations between referrers and referrals tended to be very close (Table 4.7), and in half of the cases the helpers were intimately related to the applicant (being either their relatives or intimate friends). In about 20 per cent of the cases, the relationship involved interaction at school or in the workplace. Only in thirty per cent of the cases the helper was defined as an acquaintance. It would therefore seem that both the relation between the helper and

<sup>116</sup> Although direct comparisons are of limited validity given the different operationalization of job search channels, this figure is lower than those reported by Bian2002: 121 for the non-state sector and comparable to the results obtained by Zang (2002) for first-time job seekers (45.5 per cent). The figure found in the NNHTDZ is higher than that reported by Huang (2008) for employees in the non-state sector (18 per cent), but again lower than the percentage of employees with 'soft-skills' jobs who had found a job through social networks (72 per cent). If only employees explicitly admitting to have received help from some network contact are considered as having found a job through networks, then the figures for the NNHTDZ are considerably lower than those previously reported — with the exception of Huang's study of non-state employees.

<sup>117</sup> If jobs accessed through direct recruitment methods are considered to have been obtained through some personal relation to a current company manager or employee, then 65 per cent of the network contacts mobilized for job search (26 out of 40) were related to the employing company's environment.

the helped and the relation between the helper and the employer were in most of the cases very proximate. Furthermore, the job search networks mobilized by white collar employees within the NNHTDZ seemed to operate independently from the state sector.

#### 4.5.1. Class patterns in the use of recruitment channels

Were the different recruitment methods equally used by white collar employees in different class locations? The standard CA biplot in Figure 4.3 shows that this was not the case: each class location was associated with its specific recruitment channels. The total inertia in the data (0.106) is entirely captured by the two principal axes shown in the plot. The first principal axis (horizontal) differentiates between market channels (on the right) and other channels (on the left); it accounts for 783 permills of the total inertia. Employees in the working class and ambiguous locations contributed almost the entire variation across the first principal axis (546 permills and 451 permills respectively).

TABLE 4.7  
Relation between the employee and the referrer

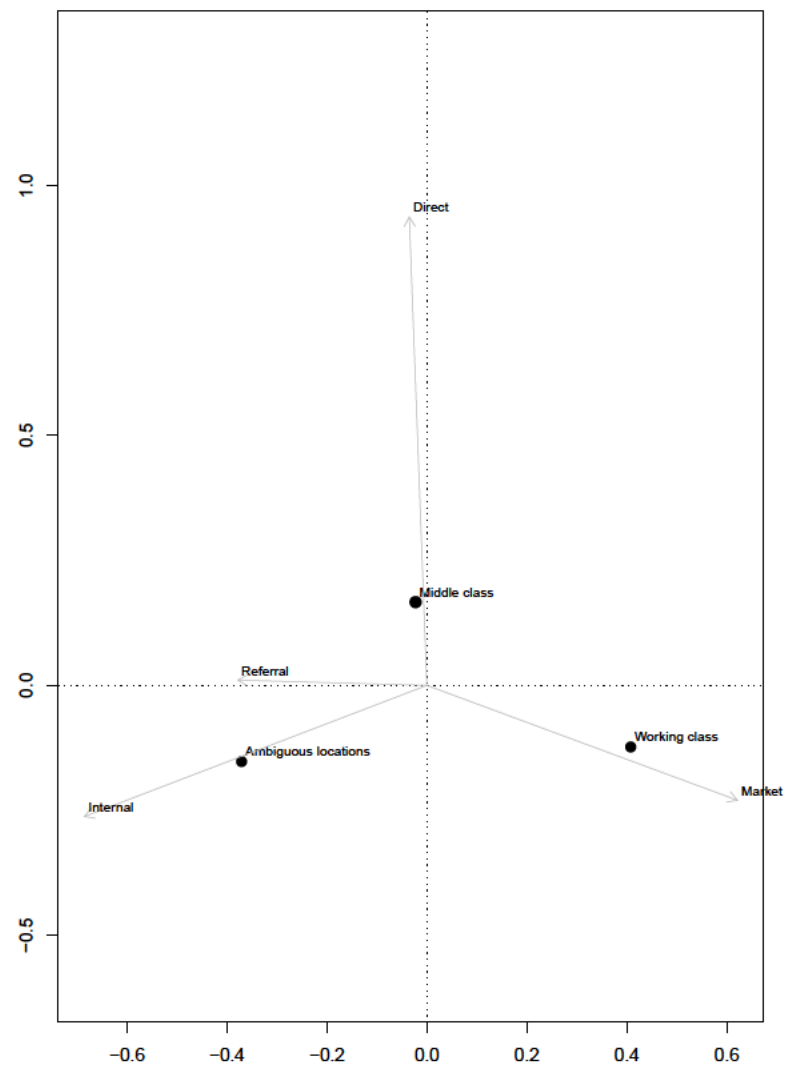
| Relation to the referrer | Freq      | Percent       |
|--------------------------|-----------|---------------|
| Relative                 | 5         | 19.23         |
| Intimate friend          | 8         | 30.77         |
| Colleague                | 2         | 7.69          |
| Schoolmate               | 3         | 11.54         |
| Acquaintance             | 8         | 30.77         |
| <i>Total</i>             | <i>26</i> | <i>100.00</i> |

NOTE: reported only for employees recruited through referral.



FIGURE 4.3

Recruitment channels used by employees in different class locations



NOTE: standard CA biplot. Rows (class location) in principal coordinates; columns (recruitment channels) in standard coordinates multiplied by the square root of the column mass (following Greenacre, 2007: Chapter 13).

Working class employees had the highest profile score on the market direction; this means that they utilized markets more frequently than employees in other class locations. In fact, 73 per cent of working class employees found a job through pure market channels. On the opposite side of the first principal axis, employees in ambiguous locations relied more extensively on referrals and internal channels, which respectively covered 34 per cent and 23 per cent of recruitments for this class location. As can be inferred by the plot, employees in ambiguous locations had the lowest score on the market direction (the profile point projects farther in the negative direction of the *market* line than the middle class). In fact, only 38 per cent of these employees were recruited through market channels, about half as frequently as working class employees. Finally, the middle class profile point projects very close to the origin along the market, internal and referral directions; this means that the utilization of these recruitment channels among middle class employees was close to the sample average. Middle class employees were recruited through market channels in 49 per cent of the cases (compared to 53 per cent for the entire sample), through referral in 28 per cent of the cases (sample frequency: 27 per cent) and through internal mechanisms in 12 per cent of the cases (sample frequency: 12 per cent).

The second principal axis (vertical) distinguishes between direct recruitment channels (on the top half of the plot) and recruitment through other methods. This axis captures 217 permills of the total inertia, more than half of which derives from the profile of middle class employees (545 permills of the second principal axis inertia). Middle class employees had in fact a much higher rate of utilization of direct recruitment channels (12 per cent) than other class locations (both below four per cent).

This first analysis of recruitment channels suggests the presence of a significant degree of class polarization in the job search process. On the one hand, employees in working class and ambiguous locations depended on specific recruitment channels. Working class employees were clearly reliant on impersonal market channels, while employees in ambiguous locations were disproportionately hired through referrals or through internal mechanisms. Employees in ambiguous locations thus depended to a relevant degree on recruitment methods requiring a direct or mediated relation with the employing company. Middle class employees were instead less reliant on any

single method and could choose among different entry avenues into the job, including direct recruitment methods that were largely inaccessible to the incumbents of other class locations.

To further investigate the association between class location and recruitment channels, I differentiated within each class location between employees who received help from someone during the job search process and employees who did not. A number of different options are available in CA to examine multi-way tables (i.e., tables involving the cross-tabulation of more than two variables). In this case, given the small number of categories involved in the analysis it was possible to use *interactive coding* (Greenacre, 2007: Chapter 16) to create a new categorical variable containing all possible combinations of class location and help. The resulting table could then be analyzed using simple CA. The standard CA biplot for this analysis is presented in Figure 4.4. In this case, the total inertia is significantly higher than when only using class location as the row variable (0.766 against 0.106, a sevenfold increase), indicating the presence of much wider deviations between the profiles presented in the plot.<sup>118</sup> The quality of the plot is also very high, with the two principal axes capturing 97 per cent of the total inertia.

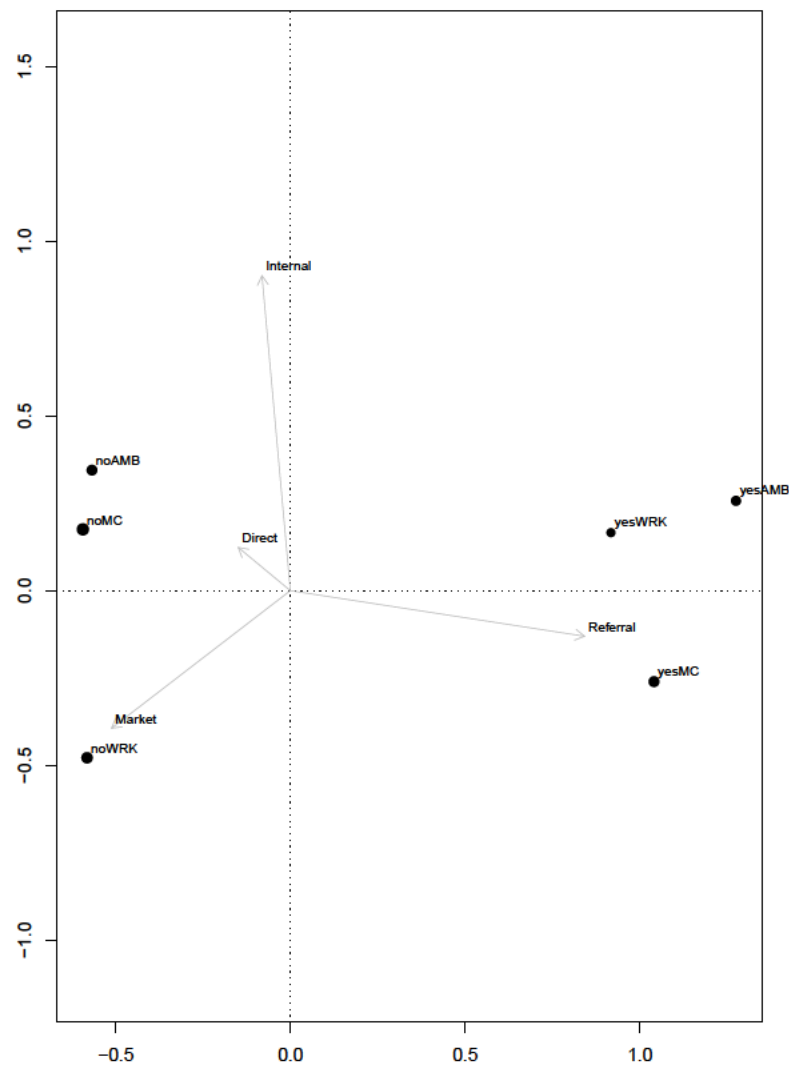
The horizontal axis differentiates between referrals and other recruitment channels. Not surprisingly, employees in all class locations who received help from someone are more clearly associated with referrals; as already shown above, in most cases the help received was related to this recruitment mechanism. The interesting part of the analysis concerns however the differences between employees who did not receive help during the job search process. In the case of working class employees, not having access to a helper meant relying almost entirely on impersonal market channels (which covered 90 per cent of recruitments among this group).

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<sup>118</sup> On the comparison of inertia across CA tables of equal and different dimensionality, see Greenacre (2006). Dimensionality in CA is defined as  $\min\{I-1, J-1\}$ , where  $I$  is the number of rows and  $J$  is the number of columns in the data table. Given that all the data tables reported in this paper have the same dimensionality (three, equal to one minus the number of columns), total inertias can be compared without transformations.

FIGURE 4.4

Recruitment channels used by employees in different class locations, controlling for helpers



NOTE: standard CA biplot. Rows (class location X help received) in principal coordinates; columns (recruitment channels) in standard coordinates multiplied by the square root of the column mass (following Greenacre, 2007: Chapter 13). The *yes* prefix indicates that the employee received help during the job search process; the *no* prefix indicates otherwise.

Dependence on markets was significantly lower for white collar employees in middle class and ambiguous locations, who found a job through market mechanisms only in 66 per cent of the cases. For these groups, internal recruitment mechanisms and direct connections to employers were still valid options to access a job. Being a job seeker without access to helpers appeared therefore to further strengthen the association between class location and recruitment channels.

#### 4.5.2. The influence of other factors

This section investigates whether class patterns of recruitment were affected by other factors such as gender, career stages and education. The literature on job search networks has often considered education as a proxy for an individual's market capacity; according to most of the authors, more educated job seekers would rely less on network forms of recruitment. In the case of the NNHTDZ, education seemed not to have a clear effect on the use of recruitment channels. The average number of years of formal education reported by respondents recruited through different methods were identical, all very close to the sample average (15.5 years). A one-way ANOVA was used to test for differences in years of education (a continuous variable) among employees recruited through different channels. Results confirmed that there were no significant differences between the group means,  $F(3, 91) = .13, p = .944$ .<sup>119</sup>

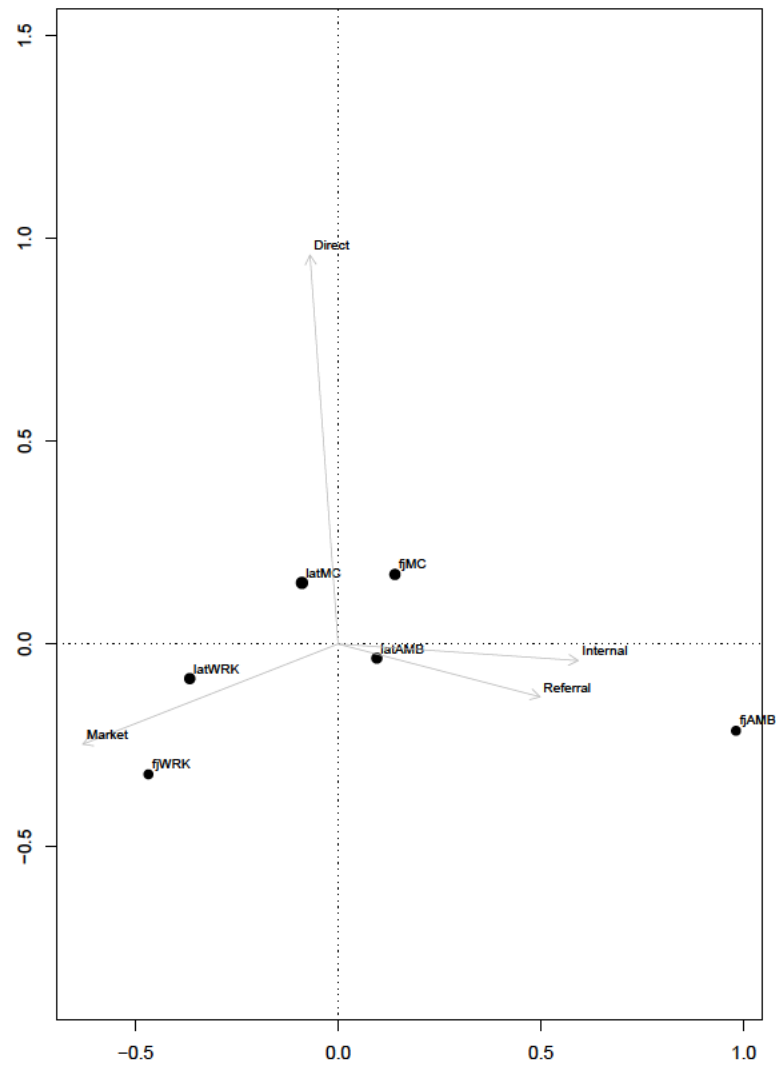
As noted above, several authors suggest that *guanxi* or more generally social networks could be less useful for job search for individuals at their first job. Was the effect of career stage the same across all class locations? Figure 4.5 presents a standard CA biplot in which rows correspond to the possible combinations of career stage (first / later job) and class location; as usual, columns represent recruitment channels. The plot is somehow less accurate than the previous ones, with the two principal axes capturing 94.6 per cent of the total inertia; it still provides a high-quality representation of variation in the data. Total inertia in this case was 0.182; this represents a roughly 70 per cent increase over the total inertia of the data disaggregated by class location alone.

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<sup>119</sup> A nonparametric Kruskal-Wallis test found similar results,  $\chi^2(3, N=95) = 0.256, p=.962$ .

FIGURE 4.5

Recruitment channels used by employees in different class locations, controlling for first/later job



NOTE: standard CA biplot. Rows (class location X career stage) in principal coordinates; columns (recruitment channels) in standard coordinates multiplied by the square root of the column mass (following Greenacre, 2007: Chapter 13). The *fj* prefix indicates that the current job was the first job; the *lat* prefix indicates that the current job was not the first job.

The effect of career stage appeared to vary across class locations. First-time job seekers employed in working class locations (*fjWRK* in the plot) were recruited through market channels even more frequently than working class employees applying for their second or later job (*latWRK*). Similarly, first-time job seekers in ambiguous locations were further pulled out in the direction of internal recruitment channels and referrals. Only 11 per cent of first-time job seekers employed in ambiguous class locations were recruited through impersonal market channels — by far the lowest percentage across all categories.

The effect of career stage on recruitment channels was less pronounced for middle class employees (the sum of inertias for both middle class categories is only 117 permills of the total inertia in the table). In this case, being first-time job seekers slightly decreased the use of direct channels and increased to a certain extent the reliance on referrals and internal channels (the channels used by employees in ambiguous locations). As already noted in the case of help received through networks, being a first-time job seeker ultimately amplified the effect of class location on the use of recruitment channels.

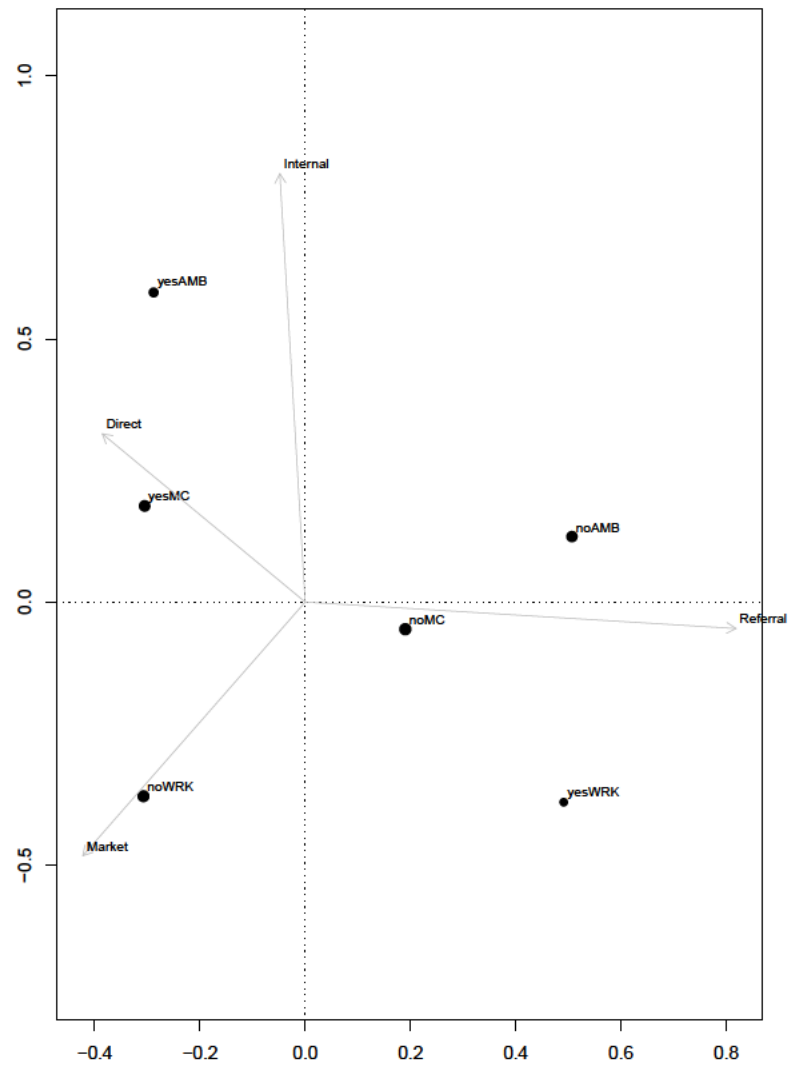
Turning now to the effect of class background, Figure 4.6 presents the standard CA biplot obtained from the interactive coding of class location with a dummy variable indicating whether at least one of the respondent's parents was *not* a member of the working class (i.e., the mother or the father of the respondent was a cadre, manager, professional or entrepreneur).<sup>120</sup>

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<sup>120</sup> The allocation of parents to working and non-working class locations was based on a simpler operationalization than that used for determining the class location of respondents. Parents' class location was based on data on occupation, employment sector and bureaucratic rank complemented by filter questions on managerial functions (for employees) and number of employees (for employers). Different version of the analysis of class background were performed. For example, class location was interactively coded with a dummy variable indicating whether at least one of the parents was a cadre, manager or professional in the core state sector (government and SOEs). This indicator has often been used in the literature as a proxy for family-mediated network connections to influent helpers in the state sector. Results of this analysis were substantially similar to the ones presented here, thus suggesting that the effects of family background were not linked to the presence of mediated connections to the state sector. These results appear to further confirm the negligible role of connections to the state sector in the NNHTDZ that was noted in the analysis of job helpers. The effect a non-working class family background on the use of recruitment channels could thus be due to other factors such as higher incomes, higher educational level or cultural capital (in the sense given to the term by Bourdieu). The results of CA based on different operationalizations of family background variables are available from the author upon request.

FIGURE 4.6

Recruitment channels used by employees in different class locations, controlling for family background



NOTE: standard CA biplot. Rows (class location X family background) in principal coordinates; columns (recruitment channels) in standard coordinates multiplied by the square root of the column mass (following Greenacre, 2007: Chapter 13). The *yes* prefix indicates that at least one of the parents was a cadre, manager, professional or entrepreneur; the *no* prefix indicates otherwise.



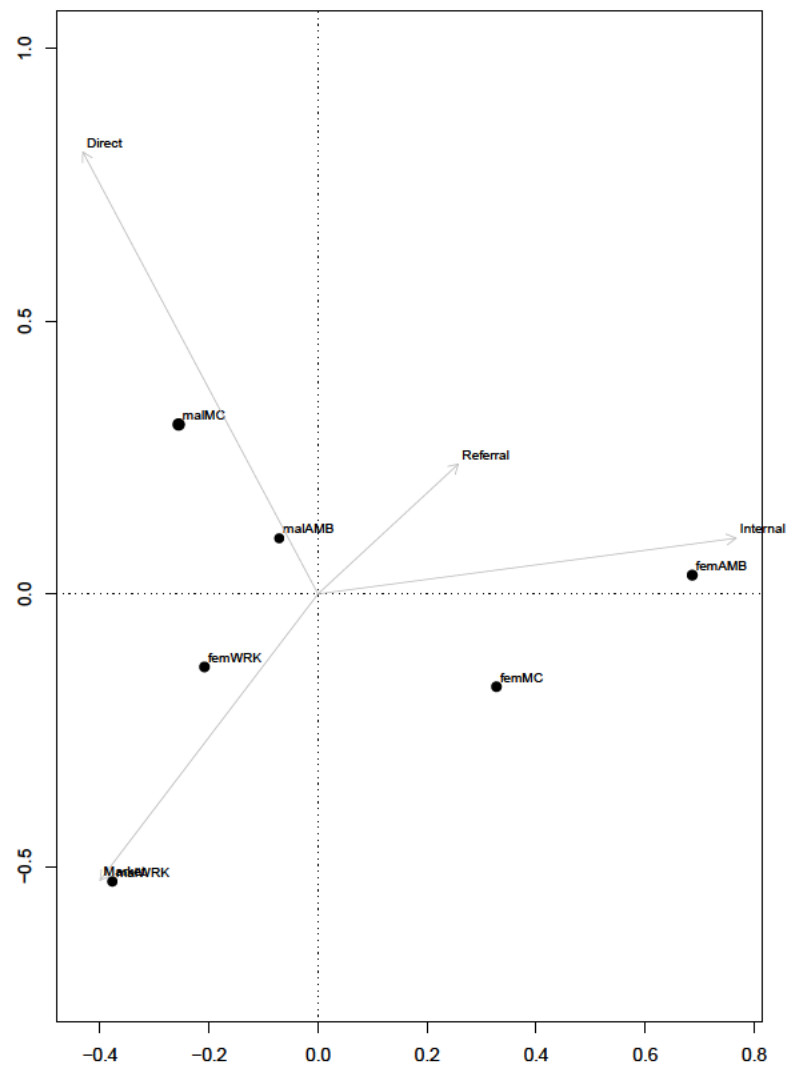
The total inertia in this table is 0.216, about double the inertia of the basic table with only class locations. The first and second principal axes represented in Figure 4.6 capture 89.7 per cent of the total inertia. Again in this case, the effect of family background interacted with the class location of employees. In the case of workers, having a non-working class background led to a significant increase in the use of referrals. While only 14 per cent of workers with working class parents found a job through referral, this proportion increased to 50 per cent if at least one of the parents was a professional, manager, cadre or entrepreneur. At the same time, having non-working class parents meant a lower reliance on markets (50 per cent, opposed to 77 per cent for workers with both working class parents).

In the case of employees in ambiguous and middle class locations, a non-working class background had the opposite effect on the use of referrals. In the presence of a non-working class family background, the reliance on referrals decreased from 47 to 11 per cent for employees in ambiguous locations and from 38 to 16 per cent for middle class locations. With the 'right' class background, employees in these class locations could more often rely on recruitment channels implying a direct formal or informal link to the employing company (as opposed to the mediated links represented by referrals). The combined use of internal and direct recruitment channels increased from 18 to 44 per cent for ambiguous locations and from 16 to 32 per cent for middle class locations. In both cases, the effect of class background was less pronounced for employees in middle class locations. A structural barrier seemed to separate internal and direct channels from other recruitment channels: even when coming from a non-working class background, working class employees could never cross the boundary of the top-left quadrant in Figure 4.6.

I finally considered the interaction between gender and class location. Notwithstanding several studies pointing to the relevance of gender, the role of gender has been largely ignored by the quantitative literature on job search networks in China. The results presented in Figure 4.7 suggest instead that gender had a significant role. The total inertia of the data table in this case was 0.214, double of that obtained by only using class location. Almost the totality of inertia was captured by the first and second principal axes represented in Figure 4.7 (99.7 per cent).

FIGURE 4.7

Recruitment channels used by employees in different class locations, controlling for gender



NOTE: standard CA biplot. Rows (class location X career stage) in principal coordinates; columns (recruitment channels) in standard coordinates multiplied by the square root of the column mass (following Greenacre, 2007: Chapter 13).

Even in this case, working class employees of either gender were more reliant on markets than incumbents of other class locations. Gender had a consistent effect on the use of markets across all class locations: female employees of all class locations were less likely to be recruited through market channels than their male counterparts (the projections of the female employees' profiles are farther towards the negative side of the market direction than the projections of the corresponding male profiles). The effect was far more pronounced for employees in ambiguous and working class locations than for middle class employees. Since in this plot the market and referral directions point in almost exactly opposite directions, the reverse is true for the use of referrals: female employees more frequently had to rely on referrals than male incumbents of the same class location.

Figure 4.7 shows instead the presence of class-gender interactions in the use of direct and internal channels. For working class employees, profile points for both genders project very close to the origin in both directions; so no gender had a distinctive advantage in accessing these forms of recruitment. Employees in ambiguous and middle class locations were instead clearly differentiated along gender lines. Female employees in these class locations were far more likely to rely on internal channels while male employees were more frequently recruited through direct mechanisms. Three profiles alone generated more than 850 permills of the total inertia. The first was male working class employees, with an unusually high relative frequency of market recruitment (83 per cent). The second was female employees in ambiguous locations, who were highly reliant on referrals (38 per cent) and internal recruitment channels (31 per cent); for this group, market forms of recruitment were used only in 31 per cent of the cases. Finally, male middle class employees were recruited in 17 per cent of the cases through direct channels and in 28 per cent of the cases through referral. If we consider that both these channels implied the mobilization of direct or mediated network ties, then 45 per cent of male middle class employees were recruited through networks — by far the highest proportion in the sample.

#### 4.6. Help given

According to Walder (1994), the capacity to control career and labour market outcomes was one of the pillars of the communist power order. Much literature has consequently concentrated on understanding whether state officials have retained or lost their power after the phasing out of the state job allocation system. Quite surprisingly, the question of who may be sharing in their former prerogatives has been entirely ignored. In order to address this question, this section of the paper focuses on the class location of job helpers. Differently from previous studies, in which job applicants were asked to name their helpers, the survey on which this study is based included several questions on the help provided by respondents to other job seekers while they were employed in their current job. In this way, it was possible to investigate the extent to which that incumbents of different class locations can influence the recruitment process within their own and other companies. The forms of help that the questionnaire asked about included referral, giving substantial help during the selection process, informing someone about a job opening and lobbying or otherwise influencing the employer in favour of the applicant. The questionnaire then asked respondents to provide more detailed information about a maximum of two cases in which they had given help to other job seekers.

Overall 39 employees, roughly 40 per cent of the sample, reported having helped other job seekers (Table 4.8). Of these, 12 had only helped one person while 27 had helped two job seekers (or possibly more). Employees in ambiguous location were the most active helpers: 63 per cent of them reported to have helped someone obtain a job; in most of the cases they had been able to help more than one person. Surprisingly, the profiles of working and middle class employees were strikingly similar when it came to their role as help providers.

A series of CA was performed to investigate which forms of help incumbents of different class locations were able to provide. For these analyses, the units of observation are the cases in which job help has been given. Respondents who reported to have helped two people correspond to two cases of help given. The following analysis are based on a total of 66 observations (help events).

TABLE 4.8  
Number of cases in which respondents helped someone find a job

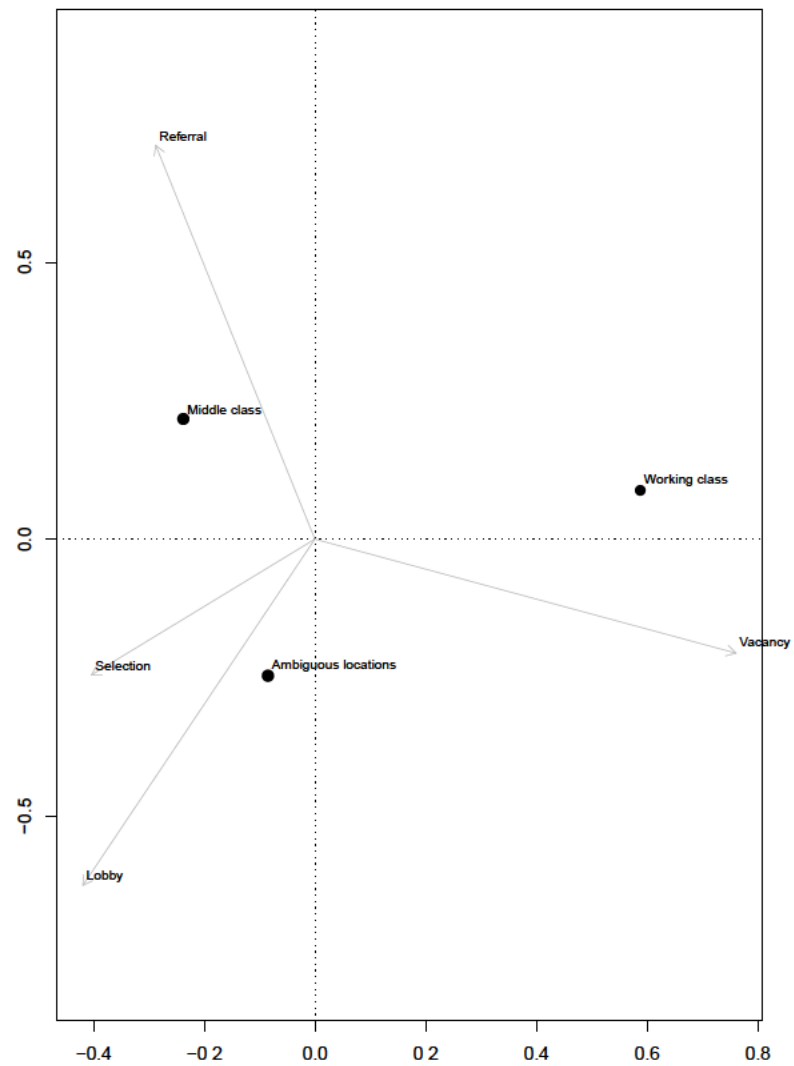
| Class location      | Never        | One case     | Two cases    | Total         |
|---------------------|--------------|--------------|--------------|---------------|
| Working class       | 18<br>(69.2) | 2<br>(7.69)  | 6<br>(23.1)  | 26<br>(100.0) |
| Ambiguous locations | 10<br>(37.0) | 7<br>(25.9)  | 10<br>(37.1) | 27<br>(100.0) |
| Middle class        | 30<br>(69.8) | 3<br>(6.98)  | 11<br>(25.6) | 43<br>(100.0) |
| Total               | 58<br>(59.8) | 12<br>(12.4) | 27<br>(27.8) | 97<br>(100.0) |

NOTE: row percentages in parentheses.

Figure 4.8 reports the association between class location and forms of help given to other job seekers. Total inertia (0.142) is entirely captured by the two principal axes represented in the graph. Even in this case, clear class patterns emerge. Working class employees were mostly able to provide information on job vacancies (25 per cent of the cases). Employees in middle class locations, when providing help to others, were in 48 per cent of the cases acting as referrers — almost twice as often as employees in ambiguous and working class locations who acted as referrers in only about 25 per cent of the cases. Finally, helpers in ambiguous class locations reported the highest rates of help through lobbying (used in 15 per cent of the cases, twice as much as middle class employees). Nonetheless, they appeared to rely less on any specific form of help than other class locations. They in fact acted as referrers in 26 per cent of the cases, gave information about job openings in 37 per cent of the cases and provided help with the selection process in 22 per cent of the cases.

FIGURE 4.8

Forms of help provided to other job seekers by employees in different class locations



NOTE: standard CA biplot. Rows (class location) in principal coordinates; columns (form of help) in standard coordinates multiplied by the square root of the column mass (following Greenacre, 2007: Chapter 13).

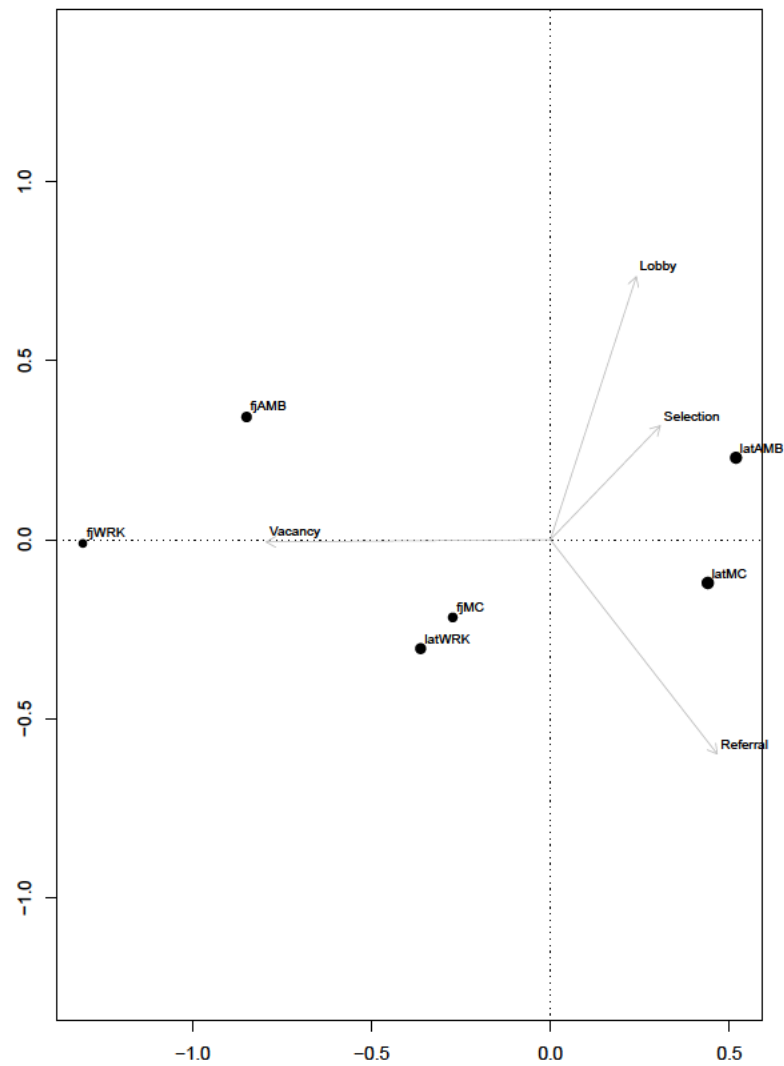
I will briefly discuss the standard CA biplots presented in Figure 4.9 and Figure 4.10 below. The plots were obtained by interactively coding class location with a dummy variable indicating, respectively, whether the helper was in the first or later job and whether the helper had in turn received help in obtaining her or his own job. In Figure 4.10, also respondents who obtained a job through a direct recruitment channel are considered to have obtained the job through networks. In both cases, total inertia is about three times bigger than when considering class location alone; both plots capture more than 90 per cent of the total inertia in the data tables.

Figure 4.9 shows that, for all class locations, helpers who were in their first job were predominantly able to provide information about job openings. For working class helpers, this remained true also when they were in later jobs. Helpers in ambiguous and middle class locations in later stages of their careers were instead able to provide more substantial forms of help.

The situation depicted by Figure 4.10 is in several regards similar. In this case, the plot shows that helpers of all class locations who had not found their own jobs through networks were more likely to provide information about vacancies than other, more substantial forms of help. Working class helpers were however mostly confined to providing information even when they had received help. Conversely, helpers in ambiguous and middle class locations who had been able to mobilize social networks for their own job search were also able to provide more significant help to others. Even in this case, each of the two classes remained associated with its characteristic mechanisms: referrals for middle class helpers, lobbying and help with the selection process for helpers in ambiguous class locations.

FIGURE 4.9

Help given by helpers in different class locations, controlling for career stages

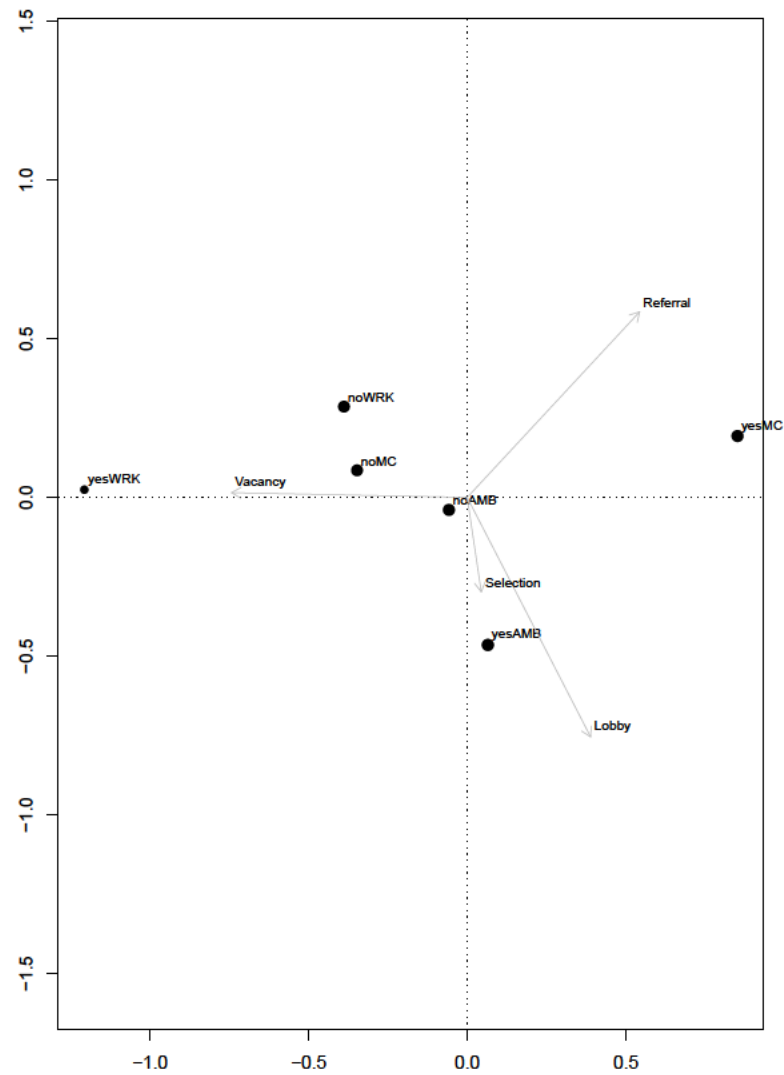


NOTE: standard CA biplot. Rows (class location X first/later job) in principal coordinates; columns (form of help) in standard coordinates multiplied by the square root of the column mass (following Greenacre, 2007: Chapter 13).



FIGURE 4.10

Help given by helpers in different class locations, controlling for the use of networks



NOTE: standard CA biplot. Rows (class location X job found through networks) in principal coordinates; columns (form of help) in standard coordinates multiplied by the square root of the column mass (following Greenacre, 2007: Chapter 13). The prefix *yes* indicates that the helper found a job through networks or through a direct recruitment mechanism.

## 4.7. Conclusions

This study is based on a relatively small sample of white collar employees and on a single study location. Results should therefore be taken with some caution. When taken together however, results indicate that social class (defined here as the location of individuals in the social relations of production) has a relevant effect on the mobilization of job search networks in the NNHTDZ, even among the rather homogeneous occupational group investigated in the study. The patterns of association between class location and utilization of job search networks are not fundamentally altered by other factors.

Several factors identified by the previous literature as determinants of social networks mobilization were investigated in this study: education, career stages and class background. Even accounting for variations in these individual-level factors, the use of job search networks is marked by persistent structural barriers. Working class employees — even when endowed with a non-working class background and at later stages of their careers — never cross the boundary that separates their patterns of networks use from that of employees in ambiguous and working class locations. They remain predominantly confined to market channels of recruitment, and are very unlikely the use direct or internal recruitment channels. This holds true also in regard to their capacity to provide help to other job seekers. Even at later stages of their careers and even when they had obtained a job through network channels, working class employees still had very limited chances to provide the forms of help available to incumbents of other class locations. This seems to suggest that the barrier to the use of direct and internal channels is structural, rather than related to individual characteristics.

The results of this study also suggest that the monocausal explanations proposed in the literature may be missing the presence of interactions with other, more structural factors. If network utilization is only a response to informational asymmetries and contract enforcement problems, we would expect factors such as education, family background (as a proxy for cultural capital) and previous experience in the corporate sector to have a linear and monotonic effect across all segments of the labour force. These factors seem however to amplify or reduce class patterns of

networks utilization, rather than to fundamentally alter them. The extent to which these factors influence class patterns is not linear; variations are greatly amplified for employees in working class and ambiguous locations, while they are less relevant for employees in middle class locations. Middle class locations would however be the ones in which the most significant effects would be expected according to the 'better match' hypothesis, since these locations are characterized by higher degrees of autonomy and by the exercise of delegated authority over other employees. Thus, employers would be more interested in making sure that these employees have the right combination of 'soft skills' (such as loyalty, teamwork, leadership, creativity and initiative) required to perform their crucial functions in the best interest of the employer. And yet, although these locations are more than others associated with direct recruitment methods, they remain always open to a wider variety of recruitment channels. In the absence of desirable individual characteristics, the dependence of working class employees on market channels was almost absolute while employees in ambiguous locations had to rely to an even greater extent on some form of previous engagement with the company. Furthermore, the fact that market use decreases among employees in ambiguous locations to then increase again for employees in middle class locations seems hardly consistent with the view of networks as a response to institutional imperfections in labour markets.

An third important finding of the study is that the social networks mobilized by white collar employees in the NNHTDZ are predominantly tied to the corporate sector itself. Little evidence was found of influence originating in the state sector. In the majority of cases, help received through networks in the NNHTDZ coincided with the use of referrals. Referrals are an open, encouraged and institutionalized channel of recruitment regularly used not only in China but in Western societies as well (see for example Fernandez et al., 2000 and the literature reviewed therein). Seen in this light, network mobilization for job search among a relatively privileged occupational group in one of the most advanced sectors of the Chinese economy appears to follow the patterns found in other capitalist societies, rather than being linked to the cultural or institutional legacies of the Chinese past.

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## 5. Conclusions

The main aim of this thesis was to underline the significance of relational class analysis for the study of the determinants of inequality in post-Mao China. Prevailing approaches to the quantitative analysis of inequality view reforms as an institutional transition from plan to market. The research agendas inspired by authors such as Yanjie Bian, Victor Nee and Andrew Walder are primarily concerned with assessing the variation in returns to forms of ‘social capital’ linked to the legacies of the redistributive system (in particular, political capital and socially-mediated connections to the party-state) and to forms of ‘human capital’ related to individual productivity (in general, measured by education and work experience).

The concept of ‘capital’, as mobilized by this literature, is embedded within a theoretical framework that essentially adheres to the canons of methodological individualism and embraces the notion of (boundedly) rational, profit-maximizing agents borrowed from neoclassical economics, neo-institutionalist economics and new economic sociology. Reflecting a general trend towards the ‘colonization of the social sciences’ by economics (Fine, 1999; 2004), the various forms of capital (human, social and political) conceptualized in the literature ultimately pertain to a set of endowments possessed by individuals rather than to a relation between classes. The presence of structural determinants of inequality is certainly acknowledged. Nonetheless, structural

inequality is often explained as a legacy of the socialist economy, as a response to imperfections in markets and information, as the consequence of local variations or as the result of organizational and labour-market segmentation (see Section 2.1). Variations in rates of returns to different forms of capital across segments of the working population have been studied only through occupational schemes — simple gradational schemes that capture the location of individuals in the *technical* relations of production (see Sections 2.3).

This thesis adopted instead a relational class paradigm (Wright's neo-Marxist class analysis) according to which class locations are defined as the location of individuals in the *social* relations of production. For wage labourers, this means that class location is specified on the basis of the degree of autonomy in the workplace and the degree of authority over other employees. The decision to apply a relational form of class analysis to the quantitative study of inequality was inspired by the vast literature on the post-reform working class, which has produced compelling evidence about the presence of capitalist exploitation and domination in Chinese workplaces. It seemed important, in the light of this evidence, to acknowledge that reforms have led to the re-emergence of capitalist class relations in China. Markets cannot in this case be simply conceived as a neutral sorting mechanism or as a place of opportunity, but should also be understood as mechanisms of compulsion (Wood, 2002).

In order to provide further evidence about the relevance of capitalist stratification processes in post-Mao China, this thesis shifted the focus of the analysis to a far more privileged segment of the post-reform class structure: highly educated white collar employees working in the high-technology sector. Wright's class analysis was applied to study of variations in wages, benefits distribution and job-search networks mobilization among white collar employees working for companies located in the Nanjing New- and High-Technology Development Zone [NNHTDZ]. These three areas of research have been widely investigated in previous studies of inequality. Chapter 2 focused on the determinants of variations in the main components of monetary incomes (wages and bonuses). Regression analysis was used to understand whether class location had a significant effect on wage incomes net of other individual-level attributes. Results confirmed that class location, alongside education, work experience and parental education, had a significant and positive



effect on yearly wages. All other variables held constant, a white collar employee in a middle class location could expect to earn 40 per cent more than a white collar employee in a working class location (see Sections 2.6 and 2.7).

Chapter 3 analyzed variations in access to various categories of nonwage benefits. Unlike the previous literature, where nonwage benefits are converted to their monetary equivalent and added to yearly wages, this study adopted a disaggregate view. Individual benefits were assigned to one of three categories derived from Wright's theory of income determination. A first group of benefits (which I termed *career* benefits) were linked to long-term career prospects and to the temporal stability of the class trajectory. A second group of benefits (*perks*) was related to short-term increases in income and to access to status-bearing goods. The third group (*basic* benefits) included basic labour guarantees. A series of Poisson regressions showed that the determinants of access to higher levels of benefits were not homogeneous across benefits categories. The level of perks was only affected by years of education, while none of the variables considered in the models had a significant effect on the distribution of basic rights. The situation was far more complex in the case of career benefits. Education and work experience had a significant effect only for incumbents of non-working class locations. White collar employees in working class locations were instead less likely to receive a significant number of career benefits regardless of their levels of education and work experience. This suggests that class location has a significant mediating effect on the returns to human capital for career benefits. Furthermore, long-term stability and predictable career paths largely remain a prerogative of the 'middle class'.

Finally, Chapter 4 analyzed class variations in the mobilization of social networks during the job search process. In this case, an exploratory technique (Correspondence Analysis) was used to investigate the association between class location and the capacity to obtain and provide help through social networks. The analysis suggests that white collar employees in different class locations found their jobs through different paths. White collar employees in working class locations disproportionately relied on impersonal market channels, while network forms of recruitment (referrals, internal labour markets and direct calls) were mainly associated with employees in non-working class locations. Other factors such as education, career stage and family background only

amplified or reduced the effect of class but did not significantly alter the fundamental class pattern. Gender was the only factor to show a consistent effect across all class locations. Female employees were more dependent on network forms of recruitment than their male counterparts, which were instead more often recruited through impersonal market channels. White collar employees in different class locations also had a different capacity to provide help to other job seekers. White collar employees in working class locations, even at later stages of their careers and when recruited through networks, could in most cases only provide information about job vacancies. Conversely, white collar employees in non-working class locations could provide more substantial forms of assistance. This capacity appeared to increase for people who were not in their first job and for employees recruited through networks.

These results must be taken with caution for several reasons (see Section 1.5). The study was limited to a single location and was based on a small sample size. Should the study be repeated, a larger sample size would certainly provide more support to the conclusions validity of the results. With a larger sample size, it would have for example been possible to utilize statistical techniques that control for endogeneity and sample selection bias, such as a Heckman-type approach or an instrumental variables approach. Any confirmation of the external validity of the results presented in the thesis would require the replication of the study in different contexts and in different industrial sectors. Furthermore, more solid evidence about the relevance of class as a generator of inequality could come from the extension of the study to larger segments of the class structure such as entrepreneurs, business owners, state employees, blue-collar employees, migrant workers, people employed in the informal urban services sector and — ideally — the unemployed and people not in the active labour force.

Notwithstanding these limitations, the results suggest that class is a significant determinant of inequality. It is certainly true that in China, as in any other advanced industrial society, different mechanisms of stratification — attribute-based selection, social closure and class mechanisms — coexist and interact in complex ways (Wright, 2009). Class cannot in itself explain the patterns of inequality emerged from reforms. As Wright has recently suggested (2009), the aim of class analysis should be to elucidate the interactions among different factors of stratification and explore

their variations across different countries in an ‘integrated analytical approach’. By overlooking the role of social class and by exclusively focusing on individual factors, the extant literature on inequality is providing a partial picture of the roots of social stratification in post-Mao China.

The thesis also intended to contribute new evidence to the literature on the regimes of production emerged in the post-reform era. Although Wright’s class analysis, structural in character, has a limited capacity to address the questions of class formation, class consciousness and class struggle that are at the core of this literature (see Section 1.5.1), the results of this study suggest some preliminary reflections about the nature of the regime of production in the NNHTDZ.

Previous studies have concentrated on the most vulnerable fractions of the post-reform working class and have focused on specific sectors of the Chinese economy — in particular labour-intensive sectors and the restructuring state sector. This study instead focused on a relatively privileged group of wage labourers (highly educated white collar employees working in one of the most advanced sectors of the Chinese economy). If the NNHTDZ is in any degree representative of a larger process, this can be identified with the attempt of the Chinese leadership to promote the development of capital- and technology-intensive sectors (Cucco, 2008).<sup>121</sup> Companies in the NNHTDZ appear to face a different set of constraints and pressures from companies operating in labour-intensive sectors. Most of them had decided to invest in Nanjing not because of the availability of cheap, unskilled labour but because of the presence of highly-qualified graduates and of a wide network of universities and research institutions. Companies were also attracted by the potentialities of Nanjing as a market for high-end products, given the growth of affluent income groups. Several companies were engaged in research and development projects with a medium- to long-term view. Skilled labour markets in the NNHTDZ had therefore a very competitive character; the main problems faced by companies were to attract and retain skilled employees with relevant work experience who could perform non-routine functions, and to ensure their performance in jobs involving a high degree of autonomy.

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<sup>121</sup> With the due differences, a parallel can be found between China’s increasing emphasis on the high-tech sector and Singapore’s ‘second industrial revolution’, whose intent was to stimulate the transition to a more sophisticated technological base (Rodan, 1989). Of course China’s attempts to upgrade its position in the global division of labour face different challenges and are based on different strategies. Most notably, Singapore’s decision to unilaterally increase labour costs finds no counterpart in China — where the emphasis has instead been placed on the development of a national system of innovation and on the shift in preferential tax regimes. Furthermore, it seems likely that attempts to promote the growth of

As far as white collar employees are concerned, it would appear that the regimes of production adopted by companies in the NNHTDZ tend to stress consent over despotism. Even in this case however, companies remained the fundamental sites of reproduction of the labour force. Incomes, stability of employment and levels of social security were largely tied to decisions taken by the employers. The state appeared to act primarily as a regulator of the conditions for local accumulation; the provision of universal guarantees associated by Burawoy (1985) with the shift from despotic to hegemonic regimes of production had not yet taken place in the NNHTDZ.

It is true that, judging from the rates of diffusion of welfare benefits in my sample, white collar employees in the NNHTDZ were relatively privileged (see Chapter 3 and Table 3.2). Almost universal coverage had been achieved for health insurance (91.8 of the sample); unemployment insurance and workplace injury insurance were also relatively widespread (84.5 per cent and 67 per cent respectively). These were certainly significant achievements. On the other hand, the analysis of the determinants of benefits distribution in Chapter 4 suggest that the cumulation of long-term benefits heavily depended on the class location of individuals. What appears to be emerging in the NNHTDZ is a diversification between core employees who enjoy a significant level of guarantees and a more vulnerable segment of the working class who only receives minimal forms of support. This is certainly not unique to Nanjing or to China, since the phenomenon characterizes late capitalism as a whole.<sup>122</sup>

In Nanjing as elsewhere in China, in moments of difficulty and economic downturn local accumulation still appeared to take precedence over the implementation of labour and welfare regulation. In response to the global economic crisis for example, in 2009 the Nanjing Labour

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a high-tech sector will not be (as it was the case in Singapore) at the expense of labour-intensive sectors. It is however important to note that the establishment of the China-Singapore Suzhou Industrial Park [CSSIP] in 1994 was a landmark moment in Jiangsu's development strategy. The CSSIP was the result of a high-level agreement between the governments of China and Singapore, and its aim was to 'install the Singapore operating system' in China. While the CSSIP was in several regards a success, the Singapore government eventually withdrew from the project in 2001 (Pereira, 2007). The CSSIP remained this notwithstanding an important influence for the rest of the province. Together with the similarly successful Kunshan Economic and Technological Development Zone [KETDZ], it was the main source of inspiration for other development zones in Su'nan (including the NNHTDZ), which adopted very similar development models through a process of 'local policy isomorphism' (Cartier, 1995; Chien, 2008).

<sup>122</sup> I thank Anita Chan for this observation, made in the course of the Chinese Studies of Australia Association 2011 Conference, Canberra, 13-15 July 2011.

Bureau took several initiatives to ease the ‘welfare burden’ of local enterprises. Payments to social security funds were deferred for six months for enterprises in financial difficulties; contributions to unemployment insurance funds were halved (from two to one per cent of the total wage bill); contributions to medical insurance and work-related injury funds were also curtailed, although to a lesser extent.<sup>123</sup> Part of the accumulated unemployment insurance funds were converted to training subsidies that the enterprises could use to provide on-the-job training to employees. Furthermore, subject to consultations with trade unions, enterprises were allowed to pay overtime and severance payments in installments and not in a lump sum. The partial picture that emerges from this study appears however to further confirm the ‘disorganized’ nature of the post-reform regimes of production conceptualized by Lee (2002).

In the course of the fieldwork business associations and private training institutions appeared to play a significant role in the private and professional lives of middle class employees. Part of the local business associations in Nanjing were surely corporatist (Unger, 1996). Furthermore, the various foreign chambers of commerce also acted as places for interest articulation. Chinese middle- and senior-managers of joint ventures and Wholly-Owned Foreign Corporations were regularly attending the activities organized by these organizations. Frequent meetings and exchanges were held with local authorities in charge of economic policy, such as the Nanjing Bureau of Foreign Trade and Economic Cooperation (BOFTEC), the Nanjing Labor and Social Security Bureau, the Nanjing State Taxation Bureau and the Foreign Economic Cooperation Division of Nanjing Development and Reform Commission.

Business associations and, even more strongly, private training providers and consultancy firms had however an important role in the production and diffusion of corporate ideology. Seminars, meetings and courses trying to respond to the necessities of companies operating in knowledge-intensive sectors in which employees enjoyed a great degree of autonomy had proliferated. Corporate culture, strategic human resource management, corporate social responsibility and ‘soft skills’ were a constant topic of conversation in Nanjing’s foreign and domestic business community. Often, these were heralded by managers as possible solutions to the problems that, allegedly,

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<sup>123</sup> Field observations and author’s interviews.

companies had to face when employing young graduates. The Chinese university system was constantly criticized for its inability to promote critical thinking and team spirit. Young graduates did not have the ‘courage to make errors’ (that is, to put their creativity to the service of the company). Similarly criticized was a family environment that allegedly produced spoiled kids who, when faced with a problem, for some unfathomable reason preferred to phone to their parents rather than talk to their managers.

The vast majority of the companies I interviewed had established corporate culture programs, cultural activities for its employees (painting competitions, sections of employees’ poetry on the corporate magazine and so on) and social responsibility programs. The latter were not only seen as a tool to win the sympathy of the local community and (more importantly) of the local government. They were also seen as initiatives that, by favouring the active involvement of employees, helped turning them into better ‘corporate citizens’.

Finally, several managers told me that they had implemented programs which, although differently named, involved some degree of ‘change’ in the attitudes of their employees. These programs were generally described as successful, apart from a minority of employees that, having failed to adapt to change, had had to leave the company. Regretfully, I did not have the chance to collect specific details about the actual implementation of these programs. For sure in some cases they must have not been entirely innocuous, since I have often enough heard stories about the severe personal consequences that (apart from being laid off) these programs could have on some employees.<sup>124</sup> Furthermore, corporate activities often extend well beyond office hours. Networking, meeting and training were crucial for managers and professionals intending to build a successful career. The ways in which this impacts on family life, on the gendered division or the outsourcing of household labour and the effects and constraints this poses to employees of different gender would deserve close investigation.

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<sup>124</sup> As an example, an interviewee told me the story of a friend of her who was a middle-aged managers in a former SOE. The division in which her friend worked had been acquired by a foreign company; the company consequently underwent a period of deep restructuring. Her friend was sent to a different city, and she did not hear from him for a while. After few months, he phoned her and asked her to meet him in one of the city’s vegetarian restaurant. She was shocked to see that he had abandoned his family, had tonsured his head and was wearing a monk’s robe.

The structural class analysis adopted in this study is certainly an inappropriate tool for addressing these issues. Further research on actual workplace relations would be needed to confirm these impressions. I think however that Wright's class analysis could be fruitfully integrated in future research on the post-reform regimes of production, given its capacity to generate quantitative evidence about the presence of processes of exploitation and about the actual mechanisms of social control over labour associated with different social classes. Ideally, a Wright-style analysis should be embedded within a case study approach to the analysis of regimes of production, or become the quantitative component of a mixed-methods design that emphasizes ethnographic evidence.

Previous analyses of the middle class have focused on the relation between the middle class and the state. Enterprises are however becoming major providers of welfare and producers of ideology in their own right — an ideology that, while not contesting the fundamentals of state power, criticizes to a certain extent the processes of socialization taking place in the family and in the educational system and contrasts its supposedly 'meritocratic' character to the corruption that reigns in the state sector. Although it is true that class relations are in China mediated by the state, the relation between the salaried middle classes and capital would deserve greater attention.

If really underway, a shift from coercion and abuse to hegemony and consensus is certainly to be welcomed, particularly if its effects spread beyond the privileged enclaves in which it appears to be taking place. This is however unlikely to happen without deep changes in the role of the state. Neo-Marxist class analysis underlines how hegemony and consensus can be — as much as coercion — mechanisms of exploitation. This reminds us of the need to look at the evolution of Chinese regimes of production with a critical edge and with a constant attention to those who, inevitably, will be left behind.

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## Appendix A

### Data collection and the operationalization of class variables

The measures used in this study to place respondents on the skill/expertise and authority dimensions of the class matrix are in several regards different from those adopted by Wright in *Class Counts* (Wright, 1997). This notwithstanding, the operationalizations aim at capturing the same conceptual distinctions between relationally-defined class locations postulated by Wright.<sup>125</sup>

In the Comparative Class Analysis Project, Wright combined three indicators to assess the location of individuals along the authority dimensions: (a) position in the formal authority hierarchy; (b) decisionmaking authority; (c) power over subordinates. Indicators (b) and (c) were built by aggregating several questionnaire items. The position on the skills/expertise dimension was instead based on occupational coding. Occupations were assigned to one of three categories

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<sup>125</sup> The operationalization of class variables is discussed at length by Wright in the Methodological Appendix to Chapter 2 of *Class Counts* (Wright, 1997). Wright reminds us that the relationship between abstract concepts and concrete measures is always problematic in social research. Even within a single conceptual framework, the distribution of individuals into class locations is inevitably affected by some degree of arbitrariness due to operational choices. Since 'measures are always underdetermined by concepts' (Wright, 1997: 80), different operational criteria can be logically compatible with the same abstract criteria of class differentiation.

(nonskilled, skilled and expert occupations) according to the job description.<sup>126</sup>

Given that, in the sequential mixed-methods approach adopted for the study, the survey phase was preceded by a qualitative phase, I tried to reduce the number of questionnaire items dedicated to assessing the class location of respondents by capitalizing on company-level information collected through face-to-face interviews with HR managers. In this way, it was possible to collect detailed information about a wider range of outcomes potentially related to class mechanisms (wages, benefits, career paths, job search networks, attitudes towards work and career, membership in associations and so on).<sup>127</sup> By including company-level information collected through qualitative interviews with the HR managers of the sampled companies into the operationalization of class variables, it was possible to reduce the amount of individual-level information about skills and authority levels without sacrificing too much in terms of accuracy. In order to place respondents on the class locations matrix, individual-level data about occupation, employment department, position in the formal hierarchy and managerial/supervisory functions were combined with company-level information about the skill levels and decisionmaking authority associated with each occupation in different departments of the company. A list of the qualitative interviews and a list of the companies included in the sample are provided in Table A.1 and Table A.2.

Aside from practical considerations, the decision to combine company-level and individual-level information was also linked to the characteristics of the study location. As also noted by Wright, ‘the skill/expertise dimension is particularly vulnerable to problems of noncomparability across countries’ because the national conventions for occupational classifications vary (1997: 79). In the case of China, this appeared especially true because the educational system, employers’ requirements as well as official and informal standards for the practice of professions had widely changed since the beginning of reforms.

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<sup>126</sup> Wright (1997) presented three alternative operationalizations of the authority and skill dimensions, in which the thresholds between levels were set according to more or less stringent criteria. Although all operationalizations were compatible with his conceptualization of class, each led to a different distribution of respondents across class locations. The choice between alternative operationalizations is ultimately to be made according to the aims of the analysis. Studies interested in obtaining a ‘pure’ definition of the working class would prefer expansive criteria for the authority and skill dimensions. Conversely, studies interested in clearly differentiating between managers and non-managers would adopt restrictive criteria for the authority dimension.

<sup>127</sup> On this point see Wright (1997: 87-90).

TABLE A.1  
List of qualitative interviews

| ID   | Sector             | Position        | Type    |
|------|--------------------|-----------------|---------|
| CS1  | Petrochemical      | HR Manager      | SFJV    |
| CS2  | Resources          | HR Manager      | WOFE    |
| CS3  | Legal services     | Senior Partner  | Private |
| CS4  | Food/beverage      | HR Manager      | WOFE    |
| CS5  | Media              | HR Manager      | WOFE    |
| CS6  | High-Technology    | Deputy GM       | SFJV    |
| CS7  | Training provider  | HR Manager      | WOFE    |
| CS8  | Petrochemical      | HR Manager      | SFJV    |
| CS9  | Automotive         | Senior Manager  | SFJV    |
| CS10 | Engineering        | HR Manager      | SFJV    |
| CS11 | Automotive         | Senior Manager  | SFJV    |
| CS12 | Media              | HR Manager      | WOFE    |
| CS13 | Engineering        | HR Manager      | WOFE    |
| CS14 | Apparel            | HR Manager      | WOFE    |
| CS15 | High-Technology    | Deputy GM       | Private |
| CS16 | Pharmaceutical     | General Manager | WOFE    |
| CS17 | Automotive         | HR Manager      | SFJV    |
| CS18 | Training provider  | Deputy GM       | Gov     |
| CS19 | Govment Department | HR Manager      | Gov     |
| CS20 | Manufacturing      | Plant manager   | WOFE    |
| CS21 | Apparel            | General Manager | WOFE    |
| CS22 | Logistics          | HR Manager      | Private |
| CS23 | Automotive         | HR Manager      | SOE     |
| CS24 | Technology         | HR Manager      | SFJV    |

(Continued on next page)

(Table A.1 - continued)

| ID   | Sector             | Position          | Type |
|------|--------------------|-------------------|------|
| CS25 | Govment Department | Assistant Manager | Gov  |
| CS26 | Training provider  | Director          | Gov  |
| CS27 | High-Technology    | HR Manager        | WOFE |
| CS28 | Govment Department | Director          | Gov  |
| CS29 | Producer services  | Deputy GM         | JV   |
| CS30 | Training provider  | Director          | WOFE |

NOTES: [SOE] State-Owned Enterprise; [JV] Joint Venture; [SFJV] Sino-Foreign Joint Venture; [WOFE] Wholly-Owen Foreign Enterprise; [Gov] Government Agency or Department.

Observations made in the qualitative phase of the fieldwork confirmed that occupational classifications were of limited for the research. Wright for example places all ‘managers in corporations’ in a single location along the skill/expertise dimension. All managers are classified as *experts* in the restrictive classification of skill/expertise, and *skilled* in the expansive classification (see Wright, 1997: Table 2.4 on page 82). Preliminary interviews with the managers of several companies suggested instead that a more nuanced picture was required in the case of China. In the rapidly changing Chinese corporate environment, there is little guarantee that the same occupation necessarily requires the same level of expertise and has the same degree of authority in companies managed according to different models.

The case of Human Resource management is a good illustration of this point. Human resource management was not traditionally assigned a relevant role in the overall management of companies in China. Human resource management was perceived as a routine administrative function, not a core component of the corporate strategy. HR managers were only marginally involved in managerial decisions about hiring, firing, career development and employees’ retention policies. Furthermore, human resource management was not until the late 1990s included in university curricula. The first post-reform generations of human resource managers were (at most) recruited among graduates in the humanities, social sciences or foreign languages who had little or no specific training in business and management. Gender imbalance was also very strong: human

TABLE A.2  
Profiles of the ten sampled companies

| ID    | Sector      | Workers | Non-workers |
|-------|-------------|---------|-------------|
| A     | High-Tech   | 14      | 6           |
| B (*) | Engineering | 450     | 50          |
| C     | Engineering | 380     | 20          |
| D     | Engineering | 132     | 68          |
| E     | Engineering | 22      | 8           |
| F     | Services    | 5       | 5           |
| G     | Services    | 15      | 5           |
| H (*) | Engineering | 892     | 108         |
| I     | High-Tech   | 282     | 18          |
| J     | High-Tech   | 128     | 52          |
| Total |             | 2,320   | 340         |

NOTES: (\*) Companies B and H only had the most specialized part of the workforce employed in the NNHTDZ, since manufacturing facilities were located elsewhere. The categories *Workers* and *Non-workers* refer to a purely occupational distinction between people employed in non-skilled occupations and people employed in technical, professional and managerial occupations. Data were provided by the companies' HR managers in the course of face-to-face interviews. They must be seen as a informed estimate of the occupational structure of the workforce in each company rather than as an accurate breakdown in well-defined categories.

resource management was traditionally reserved to women, while men tended to concentrate in the 'proper' managerial and technical functions. As competition for skilled employees increased in the course of the years, the capacity to recruit, train and retain skilled human resources was gradually recognized as an important component of a firm's growth strategy. Human resource management gradually emerged from its corporate limbo and achieved a new status. Universities started to offer degrees in the subject, and a background in business or economics became desirable. The

new generation of HR managers is by far more specialized than the old ones, and gender imbalance — while still perceivable — is decreasing. Given the limited span of time in which the change has been taking place, the two models (and the two generations of HR managers) still coexist. They seem hardly to conform to the same expertise and authority profile.

In order to address these problems, it seemed preferable to build the questionnaire from the field rather than adapt operationalizations originally developed for different contexts. As a first step, I generated a roster of the occupational categories used by HR managers when dealing with their employees. The assumption is that, in the sampled companies, these classifications are commonly employed by both managers and workers. The final list included nine occupational categories; the criteria used to place the occupations along the authority and the skill dimensions are summarized in Table A.3 and Table A.4.

For the authority category, classifications of occupations were largely consistent across companies. Information gained from the interviewed HR managers indicated that middle managers were to be classified as *supervisors* and that real managerial authority only rested with senior managers; all other occupational categories could therefore be classified as *non-managers*. Interviews also showed that employees could be assigned (on a temporary or permanent basis) decisionmaking and supervisory functions for specific projects or tasks. For this reason, the questionnaire asked respondents whether they were performing any managerial or supervisory function at the time of the survey in addition to their formal role in the corporate hierarchy. Respondents were also asked to provide a brief description of their managerial/supervisory role. Five respondents were reclassified according to this additional question (see Table A.3). In three cases, the occupational category of respondents was *administrative staff*; they had all been appointed, at the time of the survey, as Directors or Acting Directors of their respective departments. In two cases, the reclassification concerned middle managers; one of them was Project Director while the other was, at the time of the survey, in charge of the Human Resources department.

The operationalization of the skill/expertise dimension was instead more clearly dependent from the company and the department (Table A.4). Skill requirements for similarly named

occupations varied to some degree across companies and across departments within the same company. This was particularly true for three occupational categories: skilled workers, middle managers and senior managers. In three companies (companies A, D and F in Table A.2), skilled workers in practice had levels of skills and autonomy comparable to those of professionals.

TABLE A.3  
Classification of occupational categories along the authority dimension

| Occupation               | N  | Authority level | Reclassifications                 |
|--------------------------|----|-----------------|-----------------------------------|
| Unskilled workers        | 11 | No authority    |                                   |
| Technicians              | 11 | No authority    |                                   |
| Skilled workers          | 8  | No authority    |                                   |
| Clerks                   | 4  | No authority    |                                   |
| Interpreters/translators | 6  | No authority    |                                   |
| Administrative staff     | 12 | No authority    | 3 reclassified as <i>Managers</i> |
| Professionals            | 9  | No authority    |                                   |
| Middle managers          | 25 | Supervisors     | 2 reclassified as <i>Managers</i> |
| Senior managers          | 11 | Managers        |                                   |

For this reason, skilled workers in these companies have been assigned to the experts category of the skill/expertise dimension. Requirements for both senior and middle managers also varied widely according to the departments and, to a lesser extent, according to the company. Very high degrees of expertise were required for attaining managerial and supervisory positions in the more technical departments (Research and Development, Engineering, Finance, Legal Department and so on). Conversely, skill requirements were fairly low for departments performing routine controls or purely administrative functions. Examples include Coating, Quality Control and Cost Reduction Units. Finally, departments such as HR, Marketing and International Trade were located, in terms of skill requirements for managers and supervisors, between the previous two groups. The skill requirements for managerial and supervisory positions were been investigated in

each company. The percentage of respondent allocated to each category along the skill/expertise and authority dimension is provided in Table A.5. The class locations of individuals were then determined by the combination of their scores on both dimensions.

TABLE A.4  
Classification of occupational categories along the skill/expertise dimension

| Occupation               | N  | Company         | Department                            | Skill level |
|--------------------------|----|-----------------|---------------------------------------|-------------|
| Unskilled workers        | 11 | All             | All                                   | Unskilled   |
| Technicians              | 11 | All             | All                                   | Unskilled   |
| Skilled workers          | 5  | A,D,F           | All                                   | Experts     |
|                          | 3  | Other companies | All                                   | Skilled     |
| Clerks                   | 4  | All             | All                                   | Unskilled   |
| Interpreters/translators | 6  | All             | All                                   | Experts     |
| Administrative staff     | 12 | All             | All                                   | Skilled     |
| Professionals            | 9  | All             | All                                   | Experts     |
| Middle managers          | 9  | All             | IM, PM, CRU, Coa, QC, Inf             | Unskilled   |
|                          | 8  | All             | Adm, Mar, HR, IT                      | Skilled     |
|                          | 8  | All             | Technical/legal/financial departments | Experts     |
| Senior managers          | 3  | All             | QC, GMO                               | Unskilled   |
|                          | 8  | All             | Other                                 | Experts     |

Notes: department names are abbreviated as follows: (Adm) Administration; (CRU) Costs Reduction Unit; (Coa) Coating; (GMO) General Manager's Office; (HR) Human Resources; (IM) Integrated Management; (Inf) Infrastructure; (IT) International Trade; (Mar) Marketing; (PM) Production Management; (QC) Quality Control.

The final distribution of respondents across the nine employee class locations is reported in Figure A.1 and Figure A.2. Figure A.1 and Figure A.2 also depicts the two aggregate class schemes used in the empirical analyses. Scheme A (Figure A.1) is a two-class scheme defined according to the criterion proposed by Wright (1997: Chapter 15). The *Middle class* category



includes experts, managers and skilled supervisors. Unskilled workers, skilled workers and unskilled supervisors were instead assigned to the *working class* category. Scheme A was used in Chapter 2 and Chapter 3.

TABLE A.5  
Percentage of employees allocated to different authority and skill categories

| <i>Authority</i>       |     |
|------------------------|-----|
| No authority           | 60% |
| Supervisors            | 24% |
| Managers               | 16% |
| <i>Skill/expertise</i> |     |
| Nonskilled             | 39% |
| Skilled                | 24% |
| Experts                | 37% |

For Chapter 4, a three-class map was instead adopted (Figure A.2). In this case, employees were assigned to the *middle class* category only if they were unambiguously separated from the working class on at least one of the skills/expertise or the authority dimension. Employees only one degree away from the working class on any of the dimensions were instead assigned to *ambiguous class* category. The aim of this aggregation is to have a relatively pure definition of the working class and of the middle class, so as to better identify the differences between the two classes. On the use of aggregate categories in Wright's class analysis, see Wright (2005: 12-13).

FIGURE 1.1

Aggregate class categories used in the thesis: Scheme A

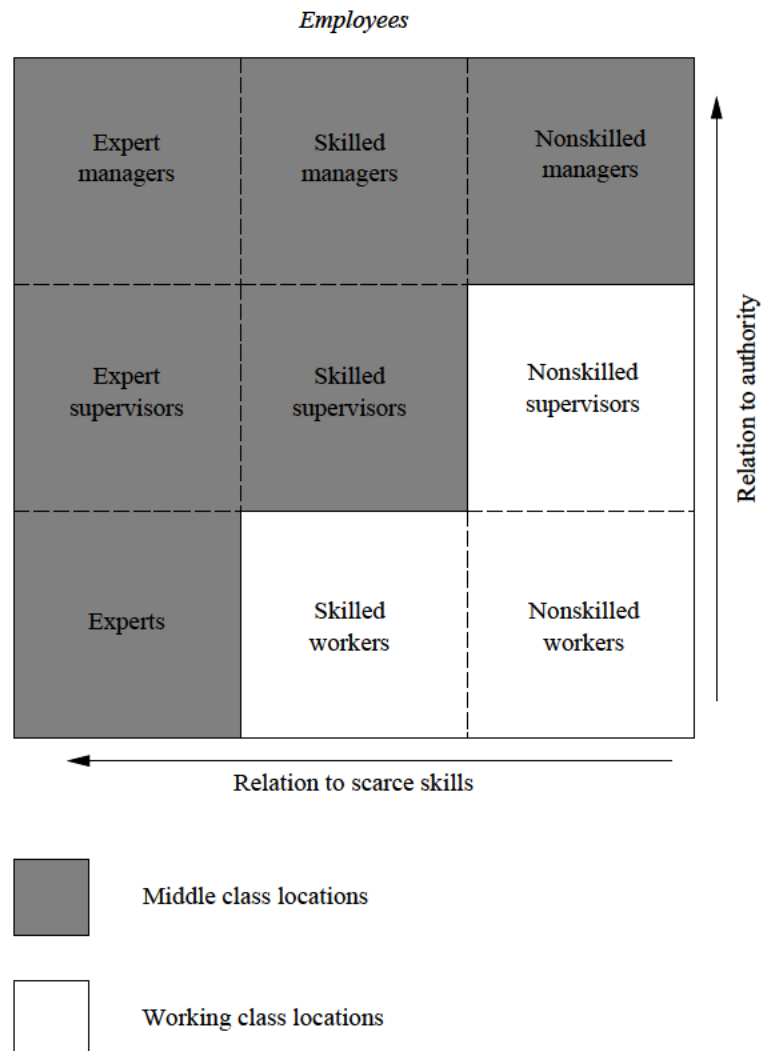
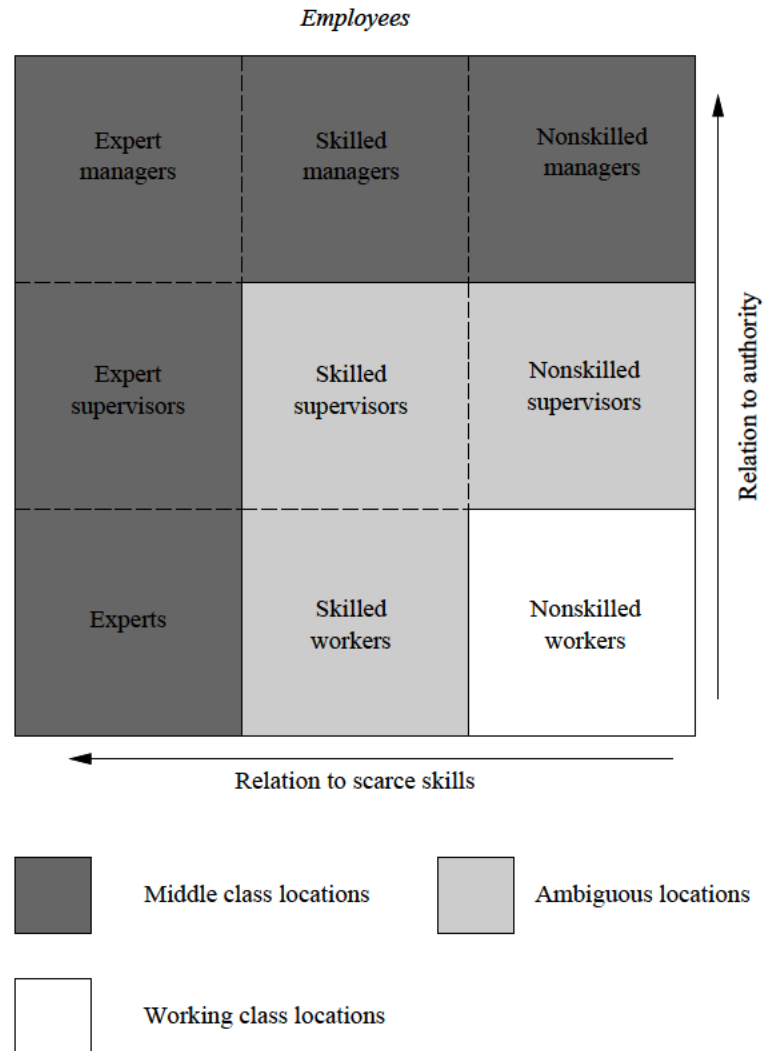


FIGURE 1.2

Aggregate class categories used in the thesis: Scheme B



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## **Appendix B**

### **Previous analyses of the post-Mao class structure**

The strategy generally adopted by China scholars to deal with the complexities of the post-reform class structure entails the refusal of the class definitions proposed in theories of democratization, and the development of ad hoc classificatory schemes through the multiplication of the dimensions used to identify social groups and their fractions. I suggest that, notwithstanding the variations in the terminology employed by different authors, nine common dimensions lie at the basis of the attempts at defining locations within the evolving post-reform social structure. I chose four classificatory schemes as the starting point for this review, since they most articulately engage with large sections of the post-reform urban social structure.<sup>128</sup>

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<sup>128</sup> Since the thesis focuses on the structural aspects of class analysis in an urban location, I only discuss the literature on class locations and class structure in post-Mao urban China. The class analyses of urban and rural China remain for the moment only loosely integrated, thus reflecting the persistence of deep differences in social, economic and institutional conditions between the rural and urban sectors. Unger has specifically written on social classes and class formation in post-Mao rural China; see in particular (Unger, 2002: Chapters 7 and 8).

The first six dimensions are: private ownership of capital; control over productive assets; employing labour; possession of skill or educational credentials; selling labour (working for a wage); and the administrative level, type of organization or economic sector of the employing state. I refer to these six dimensions as dimensions ‘within the workplace’. The remaining three dimensions are: the presence of personal or otherwise informal ties to the party-state; non-class elements of stratification (such as gender, ethnicity, citizenship); differences in individual backgrounds, biographies and class trajectories. The first of these dimensions can be seen as more specifically linked to the peculiarities of the Chinese case, while the other two have an established place in class analysis. I group these three dimensions under the rubric of dimensions ‘outside the workplace’.

Several authors have attempted a systematic mapping of the social structure of post-Mao China. The two most comprehensive classificatory schemes I discuss in this section have been proposed by He Qinglian (He, 2003) and Alvin So (So, 2003; 2005). These two authors synthesized previous scholarship on social classes in the PRC into two class schemes covering post-Mao society in its entirety. So frames his work in explicit class-analytical terms: he talks of the ‘reemergence of classes and class conflict’ since 1978 (So, 2003: 366) and he clearly identifies the social groups in his scheme as social classes. The terms he employs to refer to the class locations in his map (capitalists, middle class and workers) are commonly used in the class-analytical literature. He Qinglian is less consistent in the usage of the term ‘class’, which is sided by terms like elite, fraction, strata, groupings and layers. This notwithstanding, a class perspective permeates He’s work.

The two other schemes discussed in this section have been proposed by An Chen and David Goodman. The two schemes, while not dealing with the entire class structure of post-Mao China, cover sizable sections of the post-reform society. Building on previous English- and Chinese-language scholarship as well as on 130 interviews collected between 1998 and 2000, Chen identified several fractions within the large social aggregate that he termed the ‘entrepreneurial class’, which includes both the ‘bourgeoisie’ and the ‘entrepreneurial middle classes’. Chen explicitly refers to these social groups as social classes. At least some of the names employed by Chen (like

bourgeoisie and petit-bourgeoisie) derive from relational class-analytical traditions.

Goodman has repeatedly advocated the need to move beyond the analysis of the political capacity of the social groups emerged in the course of reforms. He has initiated and coordinated research efforts aimed at investigating a wider range of class-related questions including status, life-style and subjective identity.<sup>129</sup> In these publications, Goodman has elaborated several classifications based on different social aggregates. In Goodman (2000; 2001), he dissects the social group that he terms the ‘local political and economic elites’. His analysis identifies four categories of local cadres, composing the local political elites; and seven managerial and entrepreneurial categories, composing the local economic elites. In Goodman (2008) he refers instead to the ‘new rich’, which he further subdivides in two main components: the propertied bourgeoisie (private entrepreneurs) on the one hand, and the professional and managerial middle classes on the other. Goodman’s analysis of the local elites is never framed in terms of class and the divisions he identified in the case of the new rich are less fine-grained than in his other studies. For these reasons, I will concentrate on the more articulated class schemes proposed in Goodman (1996; 1998; 1999) I will refer again to Goodman’s studies of the elites and of the new rich in the course of the Appendix, and occasionally discuss his usage of the nine dimensions in these studies.

Table A.6 summarises the way in which the nine dimensions have been used to differentiate between social groups in the four classificatory schemes. I used a plus sign (+) to indicate when the presence of an attribute has been dichotomously used to identify a social group in a classificatory scheme. For example, a plus sign on the ownership column indicates that possession of private capital (as opposed to non-possession) characterises a social group. Conversely, a minus (-) sign denotes that the absence of an attribute defines a group. Star signs (\*) indicate that quantitatively-defined gradations along a dimension allow an author to distinguish between different social groups; the quantitative degree increases with the number of stars. For example, different numbers of stars on the ownership column may signify the possession of large-scale (\*\*\*), medium-scale (\*\*) or small-scale (\*) productive capital. Since not all authors provide precise cutting points for the quantitative degrees, the scales are not comparable across different classificatory schemes;

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<sup>129</sup> See for example Goodman (1996; 2000; 2001; 2008) and Robison and Goodman (1996). See also the contributions collected in Goodman (2008).

different numbers of stars only indicate relative rankings within each scheme. Finally a hash sign (#) denotes the presence of qualitative variations along a dimension. For example, a hash sign in the administrative level / organization column may refer to differences such as being employed in a SOE as opposed to a collective enterprise.

Indentation is used in Table A.6 to identify the hierarchical nesting of groups and sub-groups proposed by each scheme; sub-groups are indented under the larger social group to which they belong. Classificatory dimensions characterising a group and common to all its sub-groups are only reported for the parent group. Attributes are therefore inherited by all the sub-groups indented under a larger group; the indented levels only report the dimensions that allow authors to differentiate between sub-groups at that nested level. Table A.6 only reports the dimensions explicitly quoted by each authors when defining a social group. In this way I hope to have reported the original classification criteria proposed by each author as faithfully as possible. I discuss each dimension in turn, starting from the six dimensions within the workplace.

### **Dimensions within the workplace**

**Ownership of capital:** the first dimension refers to the private ownership of capital employed in productive activities. This dimension includes not only purely private ownership forms, but also capital participation (as shareholder or joint-venture partner) in hybrid private-public forms of ownership. In Chen's scheme, both the bourgeoisie and the entrepreneurial middle classes are characterized by the private ownership of productive capital. Chen identifies three distinct groups on the basis of the scale of capital owned: the bourgeoisie proper only includes 'the owners of relatively large capital' (p. 409); the petit-bourgeoisie is composed by middle-scale private entrepreneurs; and the third group, which he terms 'individual business holders' (*getihu*) only includes owners of small-scale private enterprises. The lack of reliable statistical data at an appropriately disaggregate level means that the 'dividing line between big and small entrepreneurs has to be rough and somewhat arbitrary' (p. 409).



TABLE A.6  
Classificatory dimensions used by the previous literature

|                                 | Own | Ctrl | Ski | Empl | Lab | Org | PS | NC | Bio |
|---------------------------------|-----|------|-----|------|-----|-----|----|----|-----|
| <b>Chen (2002)</b>              |     |      |     |      |     |     |    |    |     |
| Bourgeoisie                     | *** |      |     |      |     |     | #  |    |     |
| Parasitic bourgeoisie           |     |      |     |      |     |     |    |    | #   |
| Self-made bourgeoisie           |     |      |     |      |     |     |    |    | #   |
| Entrepreneurial middle class    |     |      |     |      |     |     | #  |    |     |
| Petit-bourgeoisie               | **  |      |     |      |     |     |    |    |     |
| Individual business holders     | *   |      |     |      |     |     |    |    |     |
| <b>He, 2003</b>                 |     |      |     |      |     |     |    |    |     |
| Elite                           |     |      |     |      |     |     |    |    |     |
| Political elite                 |     |      |     |      |     | #   | #  |    | #   |
| Economic elite                  |     |      |     |      |     |     | #  |    |     |
| Managers of banks/SOEs          |     | ***  |     |      |     | #   |    |    | #   |
| Executives of private companies |     | ***  |     |      |     |     |    |    | #   |
| Owners                          | **  |      |     |      |     |     | #  |    |     |
| Official background             |     |      |     |      |     |     |    |    | #   |
| Non-official background         |     |      |     |      |     |     |    |    | #   |
| Market entrepreneurs            |     |      | +   |      |     |     |    |    | #   |
| Intellectual elite              |     |      | +   |      |     |     | #  |    |     |
| Middle class                    |     |      |     |      |     |     |    |    |     |
| Higher rungs                    | *   | **   |     |      |     |     |    |    |     |
| Lower rungs                     |     | *    |     |      |     |     |    |    |     |
| Working class                   |     |      |     |      |     |     |    |    |     |
| Workers in SOEs/collectives     |     |      |     |      |     | #   |    | #  |     |
| Workers in WOFE/JV/TVEs         |     |      |     |      |     | #   |    | #  |     |

(continues on next page)

Table A.6 (continued)

|                                   | Own | Ctrl | Ski | Empl | Lab | Org | PS | NC | Bio |
|-----------------------------------|-----|------|-----|------|-----|-----|----|----|-----|
| <b>Goodman (1996, 1998, 1999)</b> |     |      |     |      |     |     |    |    |     |
| Old middle classes                |     | +    | +   |      |     |     | +  |    | #   |
| New middle classes                |     |      |     |      |     |     | +  |    | #   |
| Owner-operators                   | +   |      |     |      |     |     |    |    |     |
| Service providers                 |     |      | +   |      |     |     |    |    |     |
| Managers                          |     | +    |     |      |     |     |    |    |     |
| State capitalists                 |     |      |     |      |     |     |    |    | #   |
| Social capitalists                |     |      |     |      |     |     |    |    | #   |
| Suburban executives               |     |      |     |      |     |     |    |    | #   |
| <b>So (2003)</b>                  |     |      |     |      |     |     |    |    |     |
| Capitalist class                  | **  |      |     | **   |     |     | +  |    |     |
| Old middle class                  | *   |      |     | *    |     |     |    |    |     |
| New middle class                  |     | +    | +   |      | +   |     |    |    |     |
| Workers                           |     |      |     |      | +   |     |    |    |     |
| Temporary migrant workers         |     |      |     |      |     |     |    |    | #   |
| Permanent urban workers           |     |      |     |      |     |     |    |    | #   |

NOTE: symbols indicate that groups are defined by: (+) presence of the attribute; (-) absence of the attribute; (\*) quantitative variation of the attribute (for example \* small-scale employer \*\* large-scale employer); (#) qualitative variation of the attribute. Dimensions are abbreviated as follows: (Own): ownership of capital; (Ctrl) control over productive assets; (Ski) skills / expertise; (Empl) employing labour; (Lab) selling labour; (Org) organisation, level or sector of the state; (PS) personal ties to the party-state; (NC) non-class dimensions of stratification: ethnicity, citizenship, gender; (Bio) individual biography or class trajectory.

Goodman instead uses the private ownership dimension as a dichotomous category. Private possession of capital distinguishes the group of private entrepreneurs that he calls ‘owners-operators’ from the other components of the ‘new middle class’ (managers and service providers).<sup>130</sup> In He’s class scheme, ownership is again used as a gradational dimension: individuals are assigned to different social groups on the basis of the scale of the enterprises or businesses they own. ‘Owners’ of large- and medium-scale private companies are one of the three social groups that compose the economic elite. Owners of small-scale enterprises are instead assigned to the ‘higher rungs’ of the middle class. Finally, So identifies two classes of private capital owners: the ‘capitalist class’ and the ‘old middle class’ of small private entrepreneurs.

**Control over productive assets:** this dimension refers to the possession of authority and control over economic resources and productive assets. This dimension does not appear at all in Chen’s scheme, since he only deals with entrepreneurial locations within the class structure. Control over productive resources has instead a crucial role for Goodman, according to whom in the context of the reforming Chinese economy — characterized by the continued presence of the state as an economic actor — either ownership or control of substantial wealth can provide members of the middle classes with ‘the ability to significantly affect the lives of others’ (Goodman, 1998: 41). Furthermore, ‘control of and access to resources are clearly more important than ownership’ in explaining the sources of power, wealth and influence of the post-reform middle classes (Goodman, 1998: 43). In Goodman’s scheme, managers are identified as those elements of the middle classes that are characterized by ‘their control rather than their ownership of capital and resources’ (Goodman, 1999: 250). This is true both for the ‘old middle class’ of state managers emerged from the modernising efforts of the developmental state of the pre-reform era, and for the managers of the various forms of enterprises emerged from the restructuring of the state and collective sectors in the course of reforms.

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<sup>130</sup> In his analysis of the local elites, Goodman (2000; 2001) identifies a second group of private capital owners, the ‘public sector private entrepreneurs’. This social group, part of the local business elite, is characterized by capital participation in hybrid private-public ownership forms. Both owner-operators and public sector private entrepreneurs are characterized by Goodman as owners of generally small- or middle-scale enterprises. Private ownership of capital has also been used by Goodman as a criterion to identify different groups within the category of the new rich: on the one hand, the propertied bourgeoisie (private entrepreneurs); on the other, the professional and managerial middle classes (Goodman & Zang, 2008; Robison & Goodman, 1996).

For He, control defines membership in different social groups according to the level of assets on which individuals exercise authority. The levels are specified with reference not only to the rank of the individual, but also to the scale of the employing organization. Managers of state banks, large SOEs and private companies are assigned by He to the economic elite. Managers of 'middling and small enterprises in the state sector' (p. 171) are seen as members of the higher rung of the middle class, while 'middle- and lower-level management in state enterprises' (p. 171) are assigned to the lower rungs of the middle class. Finally, So sees managers operating in all sectors and at all levels as part of the new middle class.

**Possession of skills / expertise:** possession of skills or educational credentials is seldom seen as a determinant of class location. Often the possession of skills and expertise is presented as an attribute generally, but not necessarily, associated to individuals holding a specific location within the class structure, rather than as a defining characteristic of a social group. Skills are not discussed by Chen. For Goodman, the technocrats and professionals of the modernising state are assigned to the old middle classes, together with cadres and state managers. A higher level of skills is also found among members of the fraction of the new middle classes that he terms 'service providers'. This group provides the legal, financial and technical services that are needed to support an increasingly marketized economy. The denomination of 'service providers' appears to Goodman to be more appropriate than professionals at this stage of development of the Chinese economy (Goodman, 1999: 244).

For He, possession of skills and credentials cuts across major divisions in the social structure and characterises three different social groups: intellectuals, members of the elite; highly-paid professionals in technically-advanced or foreign-owned enterprises, members of the higher rung of the middle class; and a group of professionals (specialized technicians, scientific researchers, lawyers and teachers) that belong to the lower rung of the middle class. These three groups of credentialed workers are not identified according to the level of their skills, but mainly on the basis of the status associated with their life and work situations. Intellectuals are distinguished by their 'possession of a commanding social position and [their] authority over public opinion' (p. 168), while the two skilled fractions of the middle class are identified on the basis of their relative ranking in

terms of income and status. One group within the economic elite, the 'market entrepreneurs', is also generally characterized by the possession of skills; this however does not appear to be a defining feature of the social group but rather a characteristic of its individual members. Finally for Alvin So, the new middle class includes corporate professionals and other skilled service providers like journalists and teachers.

**Employment of labour:** So is the only author who explicitly refers to the employment of labour as a criteria to identify classes. So distinguishes two social classes on the basis of the number of workers they employ. The 'capitalist class' includes private entrepreneurs who employ more than ten workers; the 'old middle class' is composed by petty-bourgeois small entrepreneurs (*getihu*) who employ less than ten workers.

**Selling labour:** this category is again only explicitly referenced by So. He points out how the necessity to sell labour on an open labour market characterizes the class location of workers and members of the new middle class alike. The end of the state job allocation system means that 'the working class now needs to sell its labor to the market for a living' (p. 366). Similarly, because of labour market reforms and of more widespread access to education 'members of the new middle class are no longer privileged to get access to high-paying jobs, but they have to compete with one another in the professionals labor markets' (p. 371). Although workers appear as a distinct category in He's scheme, they are distinguished from other classes not on the basis of their selling labour on the open labour market (some sections of the middle class and of the economic and intellectual elites would do the same), but mostly on the basis of their lower status and income (see pp. 168 and 171).

**Level, organization or sector of the state:** this dimension captures the presence of formal relations to different parts of the state sector. The formal relations considered in this dimension include both employment relations (in which the state is the employer) or investment relations (in which the state appears as a stakeholder in some form of hybrid property arrangement). Authors who use this dimension can identify social groups according to the administrative level (prefecture, county, township and village); the type of organization (SOE, collective enterprise, rural enterprise

or service units); or the sector of the state to which their members are formally linked. This dimension differs from the dimension that I have called 'personal ties to the party-state', since the latter is based on shared interests pursued through informal channels.

This dimension does not appear in Chen's and So's schemes. Goodman instead distinguishes three different subgroups within the managerial components of the new middle classes. 'State capitalists' hold managerial responsibility in restructured state sector enterprises. 'Social capitalists' are instead the managers of social-owned or 'all people's' enterprises, a category which includes 'enterprises and activities established and developed by educational institutions, neighbourhood associations, and various kind of sociopolitical organizations' Goodman, 1999: 250. Finally, 'suburban executives' are the managers of the entrepreneurial activities of suburban villages, particularly in TVEs.

For He, holding positions of authority in the higher echelons of the state political and service sectors is what identifies the political fraction of the elite.<sup>131</sup> The political elite includes 'top state officials, high- and middle-ranking local officials, and functionaries of large state-owned, non-industrial institutions' (He, 2003: 166). The economic sector of the state is one of the criteria that allow him to identify members of the managerial stratum of the economic elite. Elite public managers are either employed in the state financial sector, or in SOEs operating in strategic sectors (natural resources, cement, engineering, aerospace, media and telecommunications). The relation to different layers of the state productive apparatus also marks a distinction in the working class (pp. 172-3). A first group includes workers employed by 'state-owned or large-scale collectively owned firms'; the second includes the employees of TVEs (alongside with workers of foreign-owned firms of sino-foreign joint ventures). The two groups are characterized by 'distinct types of relation between the workforce and the state (or the managerial agency representing it)'.

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<sup>131</sup> I have borrowed the terms 'state political sector' and 'state service sector' from Wright (1997: 461-4). The terms are not used by He. The state political sector includes 'police, courts, administrative organs of government, the military, the legislator etc'. The state service sector instead refers to the state apparatuses which specialize in the non-market production of goods such as 'public health, education, publicly-owned utilities, public recreation'. In this sense, the political elite as defined by He excludes functionaries of SOEs, as they are part of the economic branches of the state involved in the production of marketized goods.

## **Dimensions outside the workplace**

**Personal ties to the party-state:** this dimension refers to the presence of personal and informal ties to the power structures of the party-state. These relations do not necessarily require membership in the Party, but can depend on the informal mobilization of the social networks that individuals or their families have access to. For Chen, the relevance of the party-state for the analysis of class relations derives from the peculiar character of Chinese capitalism, which he sees not as the outcome of a spontaneous process but largely as ‘an “artifact” invented by the state’ (Chen, 2002: 405). Since the party-state dominates the marketplace and penetrates every aspect of society through its monopoly over political power, the entrepreneurial classes remain economically vulnerable and ultimately dependent on the arbitrariness with which officials can bestow or withdraw favours (p. 408). For Chen therefore, the divisions within the entrepreneurial class emerge from the imperfections of a capitalist system in which ‘distorted market rules and the magnitude of bureaucratic meddling’ (p. 408) deny any real space of autonomy to the bourgeoisie and to the middle class, who are able to prosper only by securing the support of the party-state. The criterion proposed by Chen to distinguish between different groups within the entrepreneurial class is not simply the presence or absence of linkages to the party-state (which he sees as an inescapable necessity for all entrepreneurs), but rather the quality of these connections. The bourgeoisie proper can thus be distinguished from the ‘entrepreneurial middle class’ (petit-bourgeoisie and individual business holders) because of the stable, long-term character of its relations to the party-state. The stability of the linkages between the bourgeoisie and the party-state is contrasted by Chen to the more erratic pattern that characterises relationships between members of the entrepreneurial middle classes and party-state officials. In this second case, the ‘exchange of money and power usually takes place on a case-by-case basis, just like buyers and sellers in an open market’ (Chen, 2003: 413).

Also for Goodman ‘the party-state has remained the central influence in the formation of China’s middle classes during the reform era, as it had been earlier during and after the first phases of modernization’ (Goodman, 1998: 40). Therefore, members of both the new and the old middle classes are characterized by the presence of strong informal ties to the party-state. Similarly,

according to He all the subgroups that compose the elite are characterized by close ties to the party-state. The mechanisms through which these ties are established are however different for the various fractions of the elite. Two fractions within the economic elite are 'linked by blood' to the party-state He, 2003: 166: the senior managers of banks and SOEs; and the executives of large- and medium-scale companies.. Both groups have their origins in the political elite of the planned economy era, and they retain close linkages to the party-state either at the individual or at the family level. Personal connections to the party-state characterize of course also the current political elite of top state administrators. For private capital owners, the establishment of ties to the party-state has instead been achieved through lobbying activities aimed at fostering their interests. Private entrepreneurs have vied to obtain roles in official organizations such as the national and local People's Congresses and the Political Consultative Committee, and a growing numbers of private entrepreneurs has joined the CCP. The relations between the intellectual elite and the party-state are depicted by He as somehow more problematic. Some elements of the intellectual elite (mostly the holders of scientific and technical knowledge, as well as economists and lawyers) have been among the beneficiaries of reforms and have built closer linkages to the party-state out of self-interest. They have been able to monopolize positions of power, and some intellectuals have also been able to access the ranks of the political elite. In the course of reforms, members of this group have been able to mobilize their personal networks to convert their newly acquired political capital into social capital. The connection between intellectual elites and the state is however changing. While before the reforms the political elite felt ideologically separated from intellectuals, after the reforms it can freely borrow ideas from intellectual circles according to its own interests. This has generated a 'think-tank complex' (p. 170) in some intellectual circles as well as a growing differentiation within the intellectual elite, which could in the future lead to the emergence of different positions towards political and social issues.

According to So, the linkage between the bourgeoisie and the party-state is so close that he talks of the formation of a 'cadre-capitalist class' in the course of reforms (So, 2003: 367-9). This class has been the result of two concurrent processes. On the one hand, there is what So calls the 'embourgeoisement of cadres': in the course of reforms, a considerable number of cadres have become either capitalist owners or managers of the hybrid, collective and private enterprises



emerged from the restructuring of the public sector. On the other hand, there is the ‘patronization of capitalists’: members of the capitalist class have been forced to forge patron-client relationships with cadres in order to secure access to resources, information and to the possibility of circumventing adverse laws and regulations. The patronization of capitalists has in some cases been achieved not only through the mobilization of informal channels, but also through the offering of shares in private enterprises to local cadres. The cadre-capitalist class is therefore the result of ‘the fusion of political capital of the cadres, the economic capital of the capitalists, and the social/network capital embedded in the local society’ (So, 2003: 369).

**Non-class forms of stratification:** this dimension captures forms of stratification not generally associated with class. I include under this rubric characteristics such as gender and citizenship status (migrants /urban residents). So uses this dimension to distinguish between workers with urban resident status and the temporary migrant workers from rural areas. Temporary workers are the result of the ‘new wave of the proletarianization of the peasantry’ set in motion by the loosening of the urban registration system. Their work conditions in the private and collective sector are not much different from those of the early Industrial Revolution. Other non-class factors used by capitalists to facilitate control over workers include gender, ethnicity and kinship ties (So, 2003: 366-7). The nationality of the employer is included by He among the determinants of differentiations within the working class. Employees of foreign-owned firms, joint-ventures and Hong Kong and Taiwanese firms (together with employees of TVEs) are seen as a different group of workers from employees in the state and collective sectors.

**Individual biographies and class trajectories:** most authors considered in this review identify divisions between social groups on the basis of differences in individual biographies or class trajectories. Due to the pervading presence of the party-state, the defining characteristics of different social groups are often articulated in terms of the timing and forms in which individual class trajectories intersect the formal and informal structures of the party-state. The biographic dimension is used by Chen to identify two distinct classes within the bourgeoisie. As discussed above, the closeness and stability of its linkages to the party-state is what distinguishes for Chen the bourgeoisie proper from the entrepreneurial segments of the middle class (petit-bourgeoisie and

individual business holders).

Chen proposes a further distinction between two types of bourgeoisie ('parasitic' and 'self-made') based on the inter- and intra-generational class trajectories followed by their incumbents. Members of the parasitic bourgeoisie were generally holding bureaucratic positions in the party-state prior to becoming private entrepreneurs. When they are not themselves cadres-turned-entrepreneurs, parasitic bourgeois have at least a senior cadre or high-level state official in their inner family circle (parents, spouse or close relatives). Thus, the close relations to the party-state that characterise the parasitic bourgeoisie are either the result of the individual mobility of its incumbents (their intra-generational class trajectories); or a legacy of their familial background (their inter-generational class trajectories). Members of the self-made bourgeoisie have instead followed class trajectories which have led them to rise 'from the bottom of Chinese society through self-help' (Chen, 2002: 411). Self-made bourgeois come from family backgrounds that could grant them no access to the power structures of the party-state. Even in the case of the self-made bourgeoisie, the mobilization of party-state networks has been crucial for economic success. The links between self-made bourgeois and the party-state are however based on outright corruption, rather than on the leverage of pre-existing social connections.

Goodman stresses instead the biographical differences between generational cohorts rather than those between individual class trajectories. Goodman notes how it is historically incorrect to view post-reform China as a country undergoing a process of modernization (Goodman, 2008: 25-7; 1998: 42). Modernization in China has taken place in different phases in the course of the twentieth century. During the Republican Era, modernization was supported by the industrialization programs promoted by warlords in several areas of the country. After the proclamation of the PRC in 1949, the Communist state again embarked on a developmental program that required the services of a large class of cadres, managers and professionals. The changes that have been taking place since the beginning of reforms are therefore to be understood not as modernization (which was well underway by the late 1970s), but rather as an attempt at economic restructuring motivated by the recognition of the inefficiencies of the planned system. For Goodman, 'the distinction between modernization and economic restructuring is important to understanding the genesis,

location and aspirations of the new middle classes of the 1990s' (Goodman, 1998: 42). The 'old middle classes' of the modernising state include the 'state bureaucrats, managers of state enterprises and technocrats who already existed in China before 1978'. Conversely, the 'new middle classes' are those emerged from the processes of economic restructuring, marketization and commercialization of the post-Mao era.

So does not refer in his class map to differences in individual biographies, while biographical elements and individual class trajectories have been used by He to distinguish different groups within the elite. The current political elite has emerged either from positions of power in the planned economic system, or through its entry into the techno-bureaucratic elite of the reform era. Similarly, at least two fractions of the economic elite (SOEs managers and executives of large- and medium-sized companies) are the outcome of the 'transition from a political elite in the planned economy to an economic elite in a semi-marketized economy', a process in which there has been a strong continuity in personnel. Members of these two fractions of the economic elite are often former cadres of the planned-economy period who have been able to convert their political power into market opportunities (He, 2003: 166). He also distinguishes three 'types' of private property owners within the economic elite on the basis of their class background and trajectories (p. 167). The first type includes private owners who come from an official background. They have generally relied on 'one-family, two systems' arrangements, whereby the husband or parents are in the government while the wife or children are doing business. The second group has instead 'made its way up from non-official background', although they have relied on the exchange of material assets for the support of the political elite. These two types of owners have based their fortunes on their informal ties to the party-state. The third type of private owners (which He calls 'market entrepreneurs') have instead been able to achieve economic success through their own capacity. Market entrepreneurs have been able to seize genuine business opportunities through their skills, often in the high-technology sector. While not originally linked to the party-state, market entrepreneurs have tried in the course of reforms to strengthen their relations to the party-state by participating in representative political organs or by joining the Party.

### **Dimensions outside the workplace and opportunity hoarding**

Different approaches to class analysis define social classes in different ways and hypothesize distinct causal mechanisms linking class to inequality (Wright, 2009). The three main approaches identify social classes (a) with gradational differences in income or status; (b) on the basis of mechanisms of closure or opportunity hoarding; (c) as rooted in mechanisms of authority and exploitation deriving from people's location within the social relations of production. While none of the studies discussed above provides an explicit definition of social class, it is however possible to identify in them elements borrowed from different class-analytical traditions.

The first thing to notice is that gradational definitions of class are not employed in any of the four schemes, with perhaps the exception of the reference made by He to the differences in status and incomes that distinguish the intellectual elite, the higher rung and the lower rung of the middle class. This is hardly surprising given that, as discussed in Section 1.1, much of the scholarship on social classes in post-Mao China shares a criticism towards gradational definitions of class and particularly of the middle class.

Class as defined in terms of location within the relations of production underlies the use of what I have termed dimensions within the workplace. Private property and authority (managerial control) over productive assets, or exclusion from them, consistently appear as defining features of the social groups and subgroups identified in the various schemes. Nonetheless, the attention to class as location within production relations does not translate into an explicit discussion of mechanisms of exploitation and domination. It is in this sense important to note that the dimensions that would allow to better specify the location of individuals in relations of domination and exploitation (selling of labour, employment of labour and possession of skills) are given a very marginal role in most of the schemes considered, the only exception being Alvin So's reference to the position of workers and members of the middle class in the evolving labour market.

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I am limiting these observations to the presence of theoretical elements linked to the definition of class relations, class structure and class locations. The authors discussed above are more concerned with questions of class formation and conflict than of class structure and inequality, but I am not here tracing the theoretical roots of their analyses of class agency.

What clearly emerges from the analyses of the four schemes is the relevance of the conceptualization of class in terms of closure or opportunity hoarding. Processes of opportunity hoarding are associated to what I have called the dimensions outside the workplace. This is particularly evident in the interpretation given to the presence of personal and informal ties to the party-state. The treatment of differences in individual biographies revolves in fact around the advantages enjoyed by individuals whose inter- or intra-generational class trajectories intersect the power structures of the party-state.

Several passages support the emphasis on opportunity hoarding as the key source of cleavage between the social groups identified in the four class schemes. This is clearly the case for Chen, according to whom proximity to the party-state — achieved either through social connections or outright corruption — is what grants the bourgeoisie its privileged access to restricted resources, thus securing its advantage over other entrepreneurial classes:

A large proportion, if not the majority, of the [parasitic] bourgeois have prospered from the commercial privileges deriving from political lineage. They are essentially a parasitic appendage of corrupt and unrestricted political power [...] By contrast, self-made bourgeois [...] face unfair competition from more privileged rivals and are compelled to pay a high price for access to politically monopolized economic resources. [...] Self-made bourgeois hold incomparable comparative advantages over the entrepreneurial middle class [the petit-bourgeoisie and individual business holders of Table A.6], not simply because they possess more abundant funds and wider social networks. They also can afford to pay a higher price to buy off more senior bureaucrats on a more stable basis' (Chen, 2002: 412-3).

Opportunity hoarding based on close linkages to the party-state is also for Goodman the key to success for the entrepreneurial classes of post-reform China:

Entrepreneurial managers and bureaucrats have emerged from within the structures of the former system of state socialism, and represent the vanguard of transformation

rather than new, distinct, socio-economic categories. For the most part, these entrepreneurial managers and bureaucrats not only maintain their links with the party-state; much of their successful, entrepreneurial activity is based precisely on exploiting those links (Goodman, 1998: 43).

For He ,

The thrust of Chinese reforms has been gradually to reallocate the possession of social resources. However [...] the principal form this has taken has been a process of privatization of juridically public assets by the power-holding stratum. Its most striking feature has therefore been a glaring inequality in the distribution of national resources — an inequality that has been the starting point of the restructuring of class relations in China in the past twenty years. [...] Though the total size of the elite that now control a stock of ‘all-encompassing capital’ is not large, it enjoys commanding power over political, economic and cultural life. Most of its members made their fortunes not through technological innovation or industrial enterprise, but by reproducing and exploiting monolithic positions of power to accumulate personal wealth (He, 2003: 164).

Opportunity hoarding is also for So the key process at play in the formation of the cadre-capitalist class. The mechanisms through which access to resources and opportunities has been restricted to members of this privileged class has changed with the progressing of reforms. In the first decade of reforms, the conversion of local state and collective enterprises into TVEs and the possibility to set up joint-ventures with foreign investors offered cadres the opportunity to use their political and social capital for their own advantage. Cadres often set up private enterprises and ‘hired their kin and friends to run them’ (So, 2003: 368). In the 1990s, the privatization of state enterprises set in motion a process that resulted in the proliferation of hybrid property forms in which the boundaries between private and public property were often fuzzy. Cadres could directly profit from the diversion and appropriation of public property, and they were provided with a ‘golden opportunity [...] to transform themselves into capitalist owners and managers of semi-state,

collective and private properties' (p. 368). At the same time, the nascent capitalist class had to cultivate a partnership with cadres (either through informal means or through the transformation of private companies into collective enterprises) as this was the only avenue to expanding their enterprises. To win the favours of the holders of political power, capitalists had to mobilize their social networks, provide gifts, pay obscure fees and make cadres shareholders in their enterprises. Cadres in turn 'favored their clientele capitalists over other non-clientele capitalists' (p. 369).

Dimensions outside the workplace and opportunity figure prominently also in studies who have dealt with specific sections of the post-reform elite. Dickson (2003; 2007) has defined 'red capitalists' as those private entrepreneurs who are also Party members. He distinguishes two sub-groups within this social group according to the timing of their entering into the Party (a biographical element): *xiaohai* entrepreneurs and co-opted entrepreneurs. The former are Party members who have become private entrepreneurs; the latter are private entrepreneurs who joined the Party at a later stage. Hong (Hong, 2004) distinguishes several components of the group he terms 'new private entrepreneurs' on the basis of the different processes of private capital accumulation that have allowed them to enter the private economy. Again in this case, groups are identified on the basis of their class trajectories and individual biographies. Tsai (Tsai, 2005: 1132) writes that 'the occupational background of business owners is a better indicator than their income level of the ways in which they perceive their political-economic interests and interact with the staff of the state in pursuing their interests'. For Wank (1995: 69), 'variations in social background, business scale and bureaucratic support cleave the entrepreneurs into distinct groups, each facing discrete opportunities and constraints and oriented to specific alliances' (see also D. Wank, 1999). In this case, two dimensions outside the workplace (the class trajectory of entrepreneurs and their relations to the party-state) are sided by business scale, a dimension within the workplace.

## **Summary**

In this Appendix I looked at the literature on social class and political change in post-Mao China from a structural class-analytical perspective. This allowed me to identify some common features

underlying different approaches to the definition of social classes and social groups. Notwithstanding the lack of an explicitly formulated class theoretical framework, the literature on the class structure of post-Mao China shares in fact some important tracts. First, the analysis of class generally revolves around mechanisms of social closure and opportunity hoarding rooted in the party-state. Second, the literature highlights the presence of several complexities in the definition of class locations, particularly for what concerns the middle class and social classes in the state sector. Third, the strategies adopted to capture these complexities entail the multiplication of the dimensions used to identify locations within the class structure. These dimensions can refer to processes taking place within or outside the workplace. With the exception of Alvin So, the schemes reviewed give little attention to distinctions among the employee population and overlook important elements conceptually linked to the social relations of production.



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## **Ethics Approval Letter**

Ethics approval for this project was granted by the UTS Human Research Ethics Committee on 11 March 2008, clearance number **2008-83A**. The research project was at the time titled 'Professional labour markets in Nanjing: a network approach'. The thesis title has been changed after my enrolment at Macquarie University. A copy of the Ethics Approval Letter is provided in the following page.

**A copy of the Ethics Approval Letter has been removed as it may contain sensitive/confidential content**