

Command and Control Cities in Global Space-economy Before and after 2008 Geo-economic Transition

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Abstract: The global economic downturn caused primarily by the US sub-prime mortgage crisis in 2007 engendered revenue loss of the multinational corporations. Existing studies have yet to depict the detrimental impacts on city's command and control functions induced by the sub-prime mortgage crisis together with its residual wave of global economic recession on the global spatial economy. Recent and previous studies have produced an 'instant history' of the global spatial economy before the global economic downturn undermines the global economy in late 2008. However, the waxes and wanes of major cities' command and control functions on the global economic arena before and after the outbreak of financial crisis and its associated geo-economic transitions are still poorly understood. This paper attempts to contribute a new set of customized data to update and fill in the gap in the literature with the investigation of the command and control functions of cities around the world from 2005 to 2009. Particular attentions are paid to the time-space relationship of the geo-economic transition that can capture the recent historical images of the command and control situation of different cities in the world.

Keywords: global space-economy; command and control cities; geo-economic transition; China

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1 Introduction

This paper seeks to discover the boom and bust of the global credit incident in the global economy between 2005 and 2009. It involves two historical watersheds—the onset of sub-prime crisis in 2007 and the ongoing impact of global economic downturn induced by the credit crunch in 2008. This paper is to map the geo-economic transition before and after the undermining economic impacts from the financial crisis on global economy from 2005 to 2009 through evaluating cities with largest multi-national corporations in the world that commands and controls the global space-economy. The era of neo-liberal globalization seems to be culminated in the eulogies of the state economic power because

place-based public finance salvaged the flow-based private finance primarily through downsizing and nationalizing private firms (Taylor *et al.*, 2009a).

This study has collected a new set of customized data about the place-based information on the cities, markedly the headquarter locations of the Fortune Global 500 list of largest multi-national firms. We carried out the data collection in August 2009 with the latest 2009 Fortune Global 500 Ranking released on July 2009 to depict the latest situation of geo-economic transition after a recent global credit crunch. We further retrieved from the Fortune Global 500 list through its website to obtain the data of the past four consecutive years (2005–2008). Therefore, we have a 5-year dataset of the Fortune Global 500 list that captures the geography of the global

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spatial economy not only before, but also after the financial crisis came into existence. Hence, this paper is written to provide a comprehensive visualization of business and financial mapping of the absence of financial crisis in 2005 and 2006, brewing and outset stage in 2007, morphing stage in 2008 and post-outbreak of the global economic crisis and its subsequent economic recession in 2009.

Building upon the Friedmann's pioneering work on the command and control functions of global cities in his World City Hypothesis as sites for concentration and accumulation of global capital (Friedmann, 1986), he developed his World City Hypothesis by building upon Froebel *et al.*'s (1980) thesis of the New International Division of Labour in which corporate organization plays significant role in mobilizing capital in the world, Reed's (1981) insight on the preeminence role of international financial centres on global space economy. This laid down a solid foundation for studies related to cities as command and control nodes of the global economy. The functions of command and control centres and basing points of capital played by the world cities are governing the perennial movement of capital around the world in the era of post-industrial mode of production (Beaverstock *et al.*, 2000). Similarly, Sassen (1991) defined the important nodal point of city with command and control functions in the global economic system as the Global City. Many researches have embodied cities into hierarchies by using such and various key variables and measuring attributes of world cities as the concentration of finance, multinational corporation headquarters, business services, manufacturing activities, transportation and population stipulated by Friedmann (1986) to map out the dynamic command and control situation on the global economy over time and rank cities according to their levels of command and control functions (Meijer, 1993; Shacker, 1994; Brotchie *et al.*, 1995; Lo and Yeung, 1998; Taylor *et al.*, 2009a; 2009b). Globalization also reinvigorated the diminishing scholarly interest in the location and leading roles of cities in the global system (Alderson and Beckfield, 2004). Taylor's interlocking network model (Taylor, 2001) is frequently cited for its pedagogic and heuristic value for exploring the role of leading cities in globalization and advances the scholarly enquiries from world city hierarchy in a competition term to a more sophisticated world city network perspective in functional and rela-

tional terms by collecting the novel and customized firm data to establish a theoretically-informed and empirically-based image of the global space economy (Taylor *et al.*, 2002; Taylor, 2004; Taylor *et al.*, 2006). The command and control function of cities in the world acts as a geo-economic indicator to visualize the adverse impact of global economic fluctuation because of the reduced revenue or even financial loss engendered by the global credit crunch. From this point of view, the command and control function of cities not only reflect the capability of accumulation and concentration of global capital but also unveil the detrimental impact on the command and control function of cities brought by the global credit crunch and its associated global economic downturn.

2 Financial Command Index

2.1 Methodology and data

It is imperative to emphasize that we modeled from the quantitative research method adopted by Peter J Taylor and his international research team documented featured in a recent commentary (Taylor *et al.*, 2009a). The primary reason for using the same research method is an attempt to contribute a mirror-like comparison of previous research in 2009 and related findings. This research method can be replicated easily with spatial implications on the situation of geo-economic landscape as long as researchers can find an additional source of data to plug into this research method. With the incorporation of five years of data at our disposal, we believe this study can serve as an explorative endeavor to visualize the changing pattern of geo-economic landscape in term of command and control power of the cities over time particularly before and after the emergence of geo-economic transition.

Preliminary analyses of headquarter locations of multi-national corporations (MNCs) have been executed for both the leading some 100 financial services firms including MNCs from six categories of industries namely the Banks: Commercial and Savings; Diversified Financials; Insurance: Life, Health (Mutual); Insurance: Life, Health (Stock); Insurance: Property and Casualty (Mutual) and Insurance: Property and Casualty (Stock) as well as for the largest 500 MNCs from all sectors defined by the Fortune Global 500. We will illustrate the changing pattern of geo-economic transi-

tions by using tables as the backdrop for more focused understanding to visualize the situation before the unfolding of financial crisis and the morphing process into a deep economic recession or depression that infringes revenue loss on the largest MNCs in the world.

Finance plays a dominant role in causing the geo-economic transition. Once the financial services firms were the masters of the universe before the financial crisis, but now they are not least important when compared to the period before the emergence of sub-prime mortgage incident. The geography of the headquarters of financial services firms not only showed the devastated sites of the financial crisis, but also revealed the extent to which cities suffered from the financial crisis in percentage term.

Between 2005 and 2009, there are some 100 financial service firms in our data^①. We use the rankings of banks, financial and insurance firms in terms of corporate size as assigned by the Fortune Global 500 Ranking to measure a city's importance as a command and control centre. Fortune Global 500 Ranking is an annual ranking of the world's largest 500 corporations as measured by a combination of rankings for revenues, profits, assets and stockholders' equity based on the firm's fiscal year ended on or before the end of March each year. The computation of the Financial command index (FCI) for each city is listed as follows: 'each city with a top five firm headquarters scores 10; cities with headquarters of firms ranked 6 to 10 score 8; 11 to 20 score 6; 21 to 30 score 5; 31 to 40 score 4; 41 to 55 score 3 and 56 to 75 score 2' (Taylor *et al.*, 2009a) and 76 and the rest score 1. The summation of the scores for each city is counted in advance and the FCI of all cities are arranged in descending order. Cities with the highest sum of scores will be arranged on the top of the FCI list and vice versa to form a general hierarchy of command and control cities in the world.

2.2 Tracing back and unraveling instant history of financial geography

The results of this exercise are shown in Table 1. For the number of financial services firms constituent from 2005 to 2009, we found that the financial services sector

keeps expanding from 108 firms to 119 between 2005 to 2008, but there is a sharp fall of 15 largest international financial services firms being expelled from the Fortune Global 500 Ranking. This implies that the global credit crunch led to substantial shrinkage of the corporate size associated with the financial loss to those international leading firms in the financial services sector. Over the past five years, the command and control function is highly concentrated in no more than 60 cities in the world and all but about one fifth in North America and Europe^②. Before the onset of the financial crisis in July 2008, New York, Paris and London constituted a tripod of global command and control centres. New York, once a dominant city in 2005 and 2006, lost its dominant command and control role to Paris since 2007. Western Europe remains the most dominant world region in the aspect of financial command and control function.

The top twenty cities are listed in terms of FCI here. This research seeks to map out those cities with the most influential command and control functions on the global economic landscape and is deemed as significant enough to highlight the discrepancies or major numeric gap between cities one after the other for showing the difference within that particular year and the waxes and wanes across researching years. The result reported that the New York failed to sustain its role as the global command and control centres since 2006. It played as a second fiddle to Paris in 2007 when was the year the global financial crisis began and even trailing Paris and London in 2008 with the unfolding detrimental revenue loss in late 2008. In 2009, New York stood on equal footing with Tokyo in terms of command and control city in the world. London also demonstrated a continuous diminishing impact in commanding global financial services from 2005 to 2009 with its peak FCI in 2006 (FCI = 97.30) to its lowest point in 2009 (FCI = 55.56). Thus, London tumbled to the fifth place on financial command and control dominance in 2009.

After the global economic downturn, the command and control functions seemed to be shifting to cities in Asian region which is less severely suffered from the global financial crisis compared to the North American and European Regions. Due to the relative decline of the

① The numbers of financial services firms in our data are 108, 110, 110, 119 and 104 in 2005, 2006, 2007, 2008 and 2009 respectively from the Fortune Global 500 Ranking

② The number of cities in non-North American and European cities with command function between 2005 and 2009 are 8/50 in 2005; 11/53 in 2006; 11/51 in 2007; 11/57 in 2008 and 10/50 in 2009

Table 1 Financial command index (FCI) from 2005 to 2009

Rank	City	FCI (2005)	City	FCI (2006)	City	FCI (2007)	City	FCI (2008)	City	FCI (2009)
1	New York	100.0	New York	100.0	Paris	100.0	Paris	100.0	Paris	100.0
2	Paris	91.89	Paris	100.0	New York	83.33	London	78.57	New York	86.11
3	London	86.49	London	97.30	London	80.95	New York	73.81	Tokyo	86.11
4	Tokyo	72.97	Tokyo	62.16	Tokyo	50.00	Brussels	47.62	Beijing	61.11
5	Zurich	56.76	Zurich	54.05	Zurich	50.00	Tokyo	47.62	London	55.56
6	Munich	54.05	Brussels	43.24	Brussels	38.10	Zurich	42.86	Munich	47.22
7	Amsterdam	40.54	Munich	43.24	Amsterdam	35.71	Beijing	35.71	Edinburgh	36.11
8	Brussels	35.14	Amsterdam	40.54	Munich	33.33	Frankfurt	33.33	Frankfurt	36.11
9	Osaka	32.43	Edinburgh	37.84	Charlotte	28.57	Munich	33.33	Brussels	33.33
10	Edinburgh	29.73	Frankfurt	29.73	Edinburgh	28.57	Edinburgh	30.95	Zurich	30.56
11	Frankfurt	29.73	Beijing	27.03	Frankfurt	28.57	Amsterdam	23.81	Amsterdam	27.78
12	Fairfield	27.03	Charlotte	27.03	Beijing	26.19	Charlotte	23.81	Fairfield	27.78
13	Beijing	24.32	Fairfield	27.03	Fairfield	23.81	Fairfield	23.81	Madrid	25.00
14	Charlotte	24.32	Osaka	21.62	Toronto	21.43	Toronto	23.81	Charlotte	22.22
15	Omaha	21.62	Toronto	21.62	Osaka	16.67	Milan	14.29	Osaka	22.22
16	Trieste	21.62	Trieste	21.62	Omaha	14.29	Omaha	14.29	Toronto	22.22
17	Bloomington	16.22	Omaha	16.22	Trieste	14.29	Trieste	14.29	Milan	19.44
18	Toronto	16.22	Bloomington	13.51	Bloomington	11.90	Bloomington	11.90	Omaha	16.67
19	Madrid	10.81	Madrid	10.81	Madrid	11.90	Madrid	11.90	Trieste	16.67
20	McLean	10.81	McLean	10.81	McLean	11.90	Osaka	11.90	Bilbao	13.89

banking and financial sectors in two predominant cities, two Asian cities namely Tokyo and Beijing overtook London in 2009 with Tokyo as a technology world city being ranked the same as New York. This partly reflected a natural catch-up effect of economic development among major commanding cities, but also a result of revenue loss in banking, financial and insurance firms headquartered in London. The narrowing discrepancy of global command function between Beijing and the originally dominant cities namely London and New York can be conducive to the insulated financial systems and the massive injection of capital support from the Chinese Government and these two factors, more importantly, enable the State-Owned Enterprises in China to weather the financial storm better than the capitalist mode of private enterprises overseas (Gunther, 2009).

This set of 5-year financial services data also enables us to witness the geo-economic transition and identifies some losers and winners. Within the top ten cities, London slid from its 2nd ranking in 2008 to its 5th ranking in 2009 due to vast sums of financial losses by three insurance firms in the category of Insurance: Life and Health (Stock)—Prudential, Legal and General Group

and the Old Mutual. Five Zurich-based financial services firms, including UBS, Credit Suisse, Zurich Financial Services, Swiss Reinsurance and Swiss Life, recorded marked shrinkage in revenue, which was attributed to the global credit crunch. The attendant effect brought forth by such a crunch has negatively impacted the command and control function of Zurich. This was evidenced in its drop in the FCI ranking (i.e. from 6th in 2008 to 10th in 2009). Worst still, Fortis's demise, a single bank, hit Brussels, which caused the city's global ranking to drop from its 4th in 2008 to 9th in 2009.

Munich and Edinburgh are two winning European cities that are on the rise of their financial command and control ranking. The former rose from the 9th place in 2008 to 6th place in 2009 due to the inclusion of a diversified financial firm based there named the Hypo Real Estate Holdings, coupled with the relative gaining of revenue of Allianz, an international insurer, to salvage its balance sheet by unloading its largest money-drainer, Dresdner Bank, in return for about 6.8×10^9 US dollar revenue, to Commerzbank. For the latter city, surprisingly, Edinburgh is able to retain its preeminence of financial command and control function in the world,

with a rise from 10th in 2008 to 7th 2009 even though both Edinburgh's HBOS (Halifax plc. and the Bank of Scotland) and Royal Bank of Scotland recorded salient negative growth on their annual financial report in 2009 due to the economic crisis. The upward movement of Edinburgh in its financial command and control function may be due to a relatively smaller scale of economic damages for these two banks when compared to an even more serious plunge of profit and revenue for financial services firms in Frankfurt, Brussels and Zurich. Turning to the United States, the demise of Wachovia Corporation, the downsizings of Freddie Mac and Fannie Mae through the nationalization resulted in the disappearance of the city of McLean in the Virginia State, from its 23rd ranking in 2008 and Washington still remains as one of the weakest financially-commanding cities in the world with its 50th ranking in 2009 from its 31st place in 2008.

3 Business Command Index

3.1 Methodology and data

To unravel the diffusive impact of the chaos from the financial sector to other industries in the rest of the world, we have taken all the other industries into account in the Fortune Global 500. Preliminary analyses of the headquarter locations for the largest 500 firms from all sectors as defined by the Fortune Global 500 Ranking from 2005 to 2009 has been carried out. With the availability of the customized 5-year data stretching across the a segment of global economic transition period, the quantitative data enables us to capture the pre- and post-financial crisis effect on the command and control functions of cities measured by the largest 500 headquarters of multinational corporations. Like what we did on the computation of FCI, we made use of the same research method adopted by Taylor *et al.* (2009a). Business command index (BCI) has been generated from a consistent firm base of the largest 500 corporations in the world, using the Fortune Global 500 Ranking from 2005 to 2009. The individual city's BCI from 2005 to 2009 is computed based on the logic of Taylor's framework: the top twelve cities city with the respective top twelve firm headquarters would be given a score of 12; the city with the 13th firm headquarters would be given a score of 11.5; cities with headquarters of firms being ranked from 14th to 25th would be given a score of 11; from

the 25th to 50th would be given a score of 10; from 51st to 75th would be given a score of 9; from 76th to 100th would be given a score of 8; from 101st to 125th would be given a score of 7; from 126th to 150th would be given a score of 6; from 151st to 175th would be given a score of 5; from 176th to 200th would be given a score of 4; from 201st to 300th would be given a score of 3; from 301st to 400th would be given a score of 2 and lastly from 401st to 500th would be given a score of 1 (Taylor *et al.*, 2009a). By adding these scores for each city together, we can produce an index as percentages of the city with the highest sum to reveal the changes of the command and control functions of cities. The results of this exercise are shown in Table 2.

3.2 Examining geography of command and control centres

The most obvious of all is that the spatial distribution of command and control cities spreads more widely across the world. Nevertheless, North America and European world regions play the crucial role in commanding the business operations globally, together with the North East Asian region, dominating the command and control functions in the world. Countries like the USA, Germany, France, Britain, the Netherlands and Japan recorded multiple entries of cities over the past five years (2005–2009).

In Table 2, it shows that Tokyo is the leading command and control centre in the world consistently followed by Paris, New York, London and Beijing from 2005 to 2008. Unlike the four developed economies namely Tokyo, Paris, New York and London, Beijing as an Asian city with the developing economy consistently in the fifth place with a narrowing trend of the discrepancy in terms of the BCI figure between developed and developing cities in the same reference period (2005–2008). Two traditional global business command nodes namely New York and London dropped one place to the fourth place and fifth place respectively, ranking behind an Asian city and developing economy called Beijing. Beijing got upward to the third place as a global business command centre in time of economic recession. The whole scenario seems to be depicting that the collapses of financial sector in the US and Britain may have already diffused the adverse impact to firms in other sectors. This can be evidenced by the falling figures of BCI for the cities of Paris, New York and London from 2007

Table 2 Business command index (BCI) from 2005 to 2009

Rank	City	BCI (2005)	City	BCI (2006)	City	BCI (2007)	City	BCI (2008)	City	BCI (2009)
1	Tokyo	100.0	Tokyo	100.0	Tokyo	100.0	Tokyo	100.0	Tokyo	100.0
2	Paris	63.50	Paris	67.46	Paris	68.04	Paris	72.04	Paris	60.28
3	New York	54.87	New York	60.29	New York	65.46	New York	60.75	Beijing	51.64
4	London	43.36	London	50.24	London	52.58	London	52.69	New York	38.79
5	Beijing	23.01	Madrid	35.17	Beijing	36.08	Beijing	44.09	London	32.24
6	Munich	21.24	Beijing	27.75	Seoul	24.23	Seoul	30.65	Seoul	22.43
7	Seoul	18.58	Seoul	21.53	Munich	21.13	Munich	23.12	Munich	19.63
8	Zurich	16.81	Munich	20.57	Zurich	18.56	Madrid	18.82	Madrid	17.76
9	Houston	14.16	Zurich	17.70	Madrid	17.53	Zurich	18.28	Moscow	14.95
10	Dusseldorf	12.83	Amsterdam	16.03	Amsterdam	16.75	Osaka	15.05	Houston	14.49
11	Osaka	12.83	Houston	15.31	Houston	16.49	Brussels	14.52	Dusseldorf	14.02
12	Atlanta	12.39	Dusseldorf	13.40	Brussels	13.92	Dusseldorf	14.52	Osaka	12.62
13	Amsterdam	11.50	Brussels	12.44	Dusseldorf	13.40	Houston	14.52	Rome	11.21
14	Madrid	11.50	Rome	11.96	Rome	12.89	Amsterdam	12.90	Stuttgart	11.21
15	Rome	11.06	Atlanta	11.48	Atlanta	11.34	Stuttgart	12.37	Zurich	11.21
16	Bonn	8.41	Edinburgh	11.48	Stuttgart	11.34	Moscow	11.83	Amsterdam	10.28
17	Brussels	8.41	Osaka	11.48	Edinburgh	10.82	San Antonio	11.83	Atlanta	8.88
18	Cincinnati	8.41	Cincinnati	9.57	Cincinnati	10.31	Edinburgh	11.29	Cincinnati	8.88
19	Courbevoie	8.41	Courbevoie	9.09	Courbevoie	9.79	Frankfurt	11.29	Courbevoie	8.88
20	The Hague	8.41	Moscow	9.09	Frankfurt	9.79	Atlanta	10.75	Frankfurt	8.88

to 2009. The full destructive effect arising from the global credit crunch and its induced global economic downturn has yet to know.

4 Will Cities in China Emerge as a Global Command and Control Centre?

The question is whether cities in China will emerge in time of the shifting of global economic centre towards Asia, the result may offer some insights to this question because of the gradual rise of Beijing as an emerging command and control centre in the world in terms of FCI and BCI in the past five years. It is noted from the FCI and BCI results that large cities around the world remain outperforming the small cities due to the globalization process in which the fundamental economic rationales of increasing returns, urbanization economies and urbanization agglomeration constantly prevail (Zhao *et al.*, 2003). Beijing, once at a tangential position to major cities of global economic centres—Tokyo, Paris, New York and London from 2005 to 2008, demonstrated not only its gradual rise on the ladders of FCI and BCI over the five years, also overrode London in

FCI and even London and New York in the ranking of BCI in 2009. Beijing has been the capital of the People's Republic of China since its establishment in 1949 and is the second largest city in China after Shanghai. Due to this peculiar background, Beijing has amassed and acquired a number of advantages over other cities in China for radiating its emerging role of global command and control centre. At first, as the capital of China, most, if not all, of the ministries and major government organs are located in Beijing, playing an imperative role as a political and cultural centre. Secondly, given the fact that the financial industry in Beijing has become one of the strategic industries of the capital economy, it is also a leading and fundamental industry guiding the development of Beijing as both the national capital and the headquarters economy. According to the official information released by the Beijing Municipal Commission of Development and Reform (2008), most financial institutions and business corporations with extensive global business are situated in this capital city. By the end of 2007, 751 financial organizations have developed the business activities in Beijing and 430 financial institutions registered the legal entity status as a financial

institution. This milieu generated 1.286×10^{11} yuan (RMB) revenue, accounting for 11.6% of the total financial industry revenue of the entire country. It is also accounts for 13.8% of GDP generated from Beijing, the highest percentage of that of all Chinese cities (Beijing Municipal Commission of Development and Reform, 2008). Beijing is also a home to 26 Fortune Global 500 Ranking companies; as a result we could show in our BCI analysis that Beijing is the third city with the most global companies in the world behind Tokyo and Paris in 2009.

In addition to this inherent city-specific advantage, the rise of China as represented by the rapid uprising of Beijing may partially be conducive to two reasons, one is the strong internal economic growth in China and another is about less financial loss from the global economic crisis in 2008. Beijing as one of the largest cities in contemporary China has been and is anticipated to continue to play the role as a focal point of global and home-based capital accumulation through economic globalization. The expansionary fiscal policy that stimulates the internal economic growth can achieve the policy goal of maintaining 8% of economic growth under China. It also recorded, with reference to the Main Statistical Data in 2009 published by the National Bureau of Statistics of China, a successful lesson on combating global financial crisis through internal economic restructuring and economic growth. As a result, strong internal growth triggered by the state and the expansionary state fiscal policy initiated by the Central Government can not only help boost the international ranking of the command and control capability from a developing city, it is capable of narrowing the discrepancies against those top commanding cities like New York, London, Paris and Tokyo (Xiao, 2009). Hence, the rise of global cities does mean the rise of the state. What global cities in China is that the city is a legitimate unit of analysis and the connections and inter-cities interactions among the global cities in particular are of high importance that cannot be ignored urban scholars.

When we mention Beijing as a global command and control centre in terms of financial and business functions, we cannot ignore the city role of Shanghai as another important financial centre in China. Where was the command and control role of Shanghai, one of the major financial cities in South-east Asia, on the global economic landscape from 2005 to 2009? As our dataset

was derived from the Fortune Global 500 Ranking dataset from 2005 to 2009, Fortune Global 500 Ranking ranked the largest 500 firms in the world in terms of revenue generation every year and marked the headquarter locations of these firms, our dataset did record Shanghai as one of the command and control cities in the FCI and BCI over the past five reference years, but with very low FCI and BCI (FCI and BCI < 5). Due to limited number (i.e. less than five most revenue-generating firms) out of the largest 500 firms from all sectors in BCI and less than two firms out of some 100 firms from financial services sectors in FCI established the headquarters in Shanghai from 2005 to 2009, therefore, Shanghai was out of the Top 20 Cities which could yet radiate its command and control centre role on the global scale.

5 Conclusions

It is anticipated that the literature on the spatial impacts of the 2008 Geo-economic Transition in global financial geographies would be burgeoning; scant attention has been paid to how to visualize the dynamics in the global spatial economy before and after the economic crisis in 2008 as a year of critical watershed. Taylor and his research team in 2009 conducted their inspiring command and control city analyses on the global economic landscape by using a one-year dataset extracted from the Forbes Global 2000 to capture the instant image of global economic landscape in 2008. As an exploratory extension of the effort made by Taylor and his research team, we captured 5 years of instant images of global economic landscape (2005–2009) and sought to unravel the dynamism of recent global economy through the lens of cities which played differing role of command and control centres over time. This paper posits us in an ideal vertex to conduct a series of simultaneous analyses that examines impacts between pre- and post-geo-economic transitions from 2005 to 2009.

By extracting the FCI and BCI results from our Fortune Global 500 Ranking dataset in 2008 for making a relatively comparable comparison to Taylor and his research team's FCI and BCI results from the Forbes Global 2000 dataset in 2008, some similar FCI and BCI results were observed. For FCI in 2008, New York and London were 2 out of top 3 cities with the highest FCI in both Taylor's and our datasets in 2008 (Taylor *et al.*'s

FCI Ranking: No. 1: New York, No. 2: London, No. 3: Zurich; Lee's FCI Ranking: No. 1: Paris, No. 2: London, No. 3: New York). For BCI in 2008, Tokyo and New York were 2 out of top 3 cities with the highest BCI in both Taylor *et al.*'s and our datasets in 2008 (Taylor's FCI Ranking: No. 1: Tokyo, No. 2: New York, No. 3: London; Lee's FCI Ranking: No. 1: Tokyo, No. 2: Paris, No. 3: New York). All in all, a comparative finding from two aforementioned datasets may conclude that New York remains the most powerful global command and control centre in financial and business functions. Nevertheless, the major difference from previous research and the methodological contribution of this study were that our longitudinal analyses could help understand the changing dynamics of global economic landscape over time by knitting individual instant image every year as adopted by Peter J Taylor and his research team.

In this paper, it is noted that cities in North America and Europe are still harnessing the command and control function in the global financial services sector no matter before and after the global financial crisis. However, the command and control cities seem to be shifting towards Asia. These two Asian cities are Tokyo in Japan and Beijing in China. The former is capable in preserving her own business and financial commanding position whereas the latter is increasingly gaining dominant position as one of the crucial nodes of command and control cities on the global spatial economy with reference to the results of FCI and BCI over the past five years. These analytical results resonate to a strategic analysis in a report titled 'Global Trends 2025: A Transformed World' conducted by a federal agency called the National Intelligence Council in the United States Government that 'in terms of size, speed, and directional flow, the transfer of global wealth and economic power now underway, roughly from the West to the East, is without precedent in modern history'. Thanks to the strong domestic demand and insulated state-planned financial system, Beijing as one of the emerging Asian cities seems to be able to decouple from the sub-prime financial turmoil of the developed world. Bruce Kasman, the Chief Economist at JP Morgan Chase in the financial field and Yasheng Huang, Professor of International Management at the Sloan School of Management of the Massachusetts Institute of Technology from the academic background made two similar points—Asia-Pacific) region can make hyper-economic recovery from

the global economic recession and developing countries like China and India will rise from the global financial crisis in better shape than those developed countries (US, Europe and Japan) because of the government support and state-planned financial systems.

This study contributes a new set of customized longitudinal data to redraw the historical picture of whole process of global economic transition. By introducing the time dimension into two economic indicators here, FCI and BCI, these indicators can also serve as tools in future to visualize the gauge the depth of economic downturn and the pace of recovery of a specific sector or a collective set of industries in which firms are based in cities by checking the waxes and wanes of such financial-tsunami-torn cities as London and New York among many cities that suffered from the 2007 global credit crunch. The future research agenda may shed new light on how fast the pace and when will the global-credit-crunch-torn economies recover from their economic turmoil and whether the cities with developing economies or in the economic mode of socialist capitalism like Beijing can sustain its command and control role on the global geo-economic landscape through plugging in data obtained from the same source. The insertion of Beijing or other emerging Third World Cities in China into the hierarchical global city system required qualitative investigation to the histories, ideologies and contexts that bring about or help offer explanation to the ways how and why these Chinese cities may accumulate global control and coordination capabilities in future.

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