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**Labour Shortages in China's Dual-Sector Economy:**

Has the world's workshop exhausted its comparative advantage – people?

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**Abstract:**

In 2004, acute labour shortages were first observed in labour-intensive export-processing sectors in China's coastal provinces. Paired with rising wages in rural and urban areas, many economists have claimed China has reached its Lewis Turning Point of economic development. This dissertation reviews these claims by context-testing Lewisian theory, and finds little evidence to suggest China has met its Lewis Turning Point. Rather, it attributes China's unique institutional and political economy to persisting labour shortages. These findings are founded in an amalgamation of numerous factors. While structural transformation has been vast and far-reaching, a significant portion of China's population still lives in rural areas and urbanisation processes show no indication of levelling-off. While wages have been rising since the mid-1990s and early 2000s for urban and rural households, respectively; it is found the implementation of minimum wage laws and their provisions may attribute these trends. Employment rates reveal that as late as 2009 – some five years after labour shortages first appeared – underemployment in the traditional sector was widespread, and high participation rates of migrants in urban labour markets suggest there exists a barrier to labour mobility that leaves many rural residents without access to gainful employment. This sentiment is developed with migration trends that illustrate labour mobility in China is largely cyclical. Institutional and political barriers, presenting themselves in the hukou system and a skewed incentive structure, provide disincentives to permanent migration. As a result, China has a floating population of upwards of 180 million people even to this day. This dissertation thus finds institutional and political undercurrents – a legacy of Maoist China – obstruct the perfect elasticity of labour mobility. Accordingly, labour shortages co-exist with a surplus pool of labour and cannot be explained by China having met its Lewis Turning Point.

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## 1.0 Introduction

### 1.1 Background

With the inauguration of Deng Xiaoping in 1978, Maoist '*politics in command*' was quickly replaced by a doctrine of '*economics in command*' intended to promote market-orientated economic growth (Prychitko 1987). The pre-reform regime can be summarised succinctly as interventionist, whereby the administration – as opposed to market and supply-and-demand mechanisms – assumed the role of resource allocation and price determination in the economy (Fei 2004: 39). By adopting a Soviet-style command-economy, China's developmental focus was given to '*modernisation*', which was to be achieved through heavy industry and industrial output. Accordingly, the agricultural sector was divided into largely unproductive collective units, the urban into 'work units' (danwei), firms were state-owned<sup>1</sup> and guided not by profit maximisation but by state-assigned output targets, and labour was bureaucratically allocated between traditional and industrial sectors under the *hukou system* – discussed later in this segment (Fei 2004: 29). Inefficient allocation mechanisms and the absence of economic incentives meant pre-reform China was relatively economically stagnant, a climate worsened by the catastrophic results of the Great Leap Forward<sup>2</sup> and the Cultural Revolution<sup>3</sup> (Fei 2004: 39; Prychitko 1987).

Since 1978, a series of market reforms has shifted China from a centrally-planned to a market-based economy, breaking free of Maoist ideology. The reform era (1978-1993), as it has come to be known, has witnessed China open-up<sup>4</sup> economically, dismantle collectivism, transform its prevailing institutions, and develop market-orientated allocation mechanisms for capital, services and labour (Cai, Wang 2009). The result has been a complete restructuring of employment patterns and labour market dynamics in China, where the rise of township and village enterprises (TVEs)<sup>5</sup> between 1978 and 1996 have been catalytic to the development of China's market economy (Naughton 2007: 271). The appearance and subsequent expansion of TVEs has, by providing competition to SOEs, been instrumental in marketization processes

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<sup>1</sup> State-owned enterprises (SOEs), of which were managed by someone appointed by the Communist Party (Naughton 2007: 117).

<sup>2</sup> The Great Leap Forward refers to the most extreme, and devastating, period of Maoist China's history. It was the regime's attempt at 'leaping' toward completely communist and industrial society. It intended that the agricultural sector would fuel industrial growth; and while industrialisation did occur at a pace unparalleled, the drain of resources and manpower that fuelled it was entirely exhausted. The result, among other human rights atrocities, was the Great Chinese famine - an estimated 25 to 30 millions deaths were incurred between 1959 and 1961 as a result (Naughton 2007: 69-72).

<sup>3</sup> The cultural revolution describes the era between 1966 and 1969 by which 'Red Guards' (groups of students) were exhorted by Mao to dissolve the Communist party leadership - excluding Mao himself. The revolution can be regarded, on one hand, as Mao's attempt to revitalise '*revolutionary spirit*', or else as a scheme to ride the Communist party of Mao's political opponents (Naughton 2007: 74-75)

<sup>4</sup> Central to China's opening-up was the introduction of 'Special Economic Zones' (SEZs). These, intended to rebuild traditional economic ties to Maritime China, were established to draw foreign investors. The biggest SEZ - Shenzhen - for example, was built in proximity to Hong Kong, with the intention of attracting investment from what was then a British colony (Naughton 2007: 27-28).

<sup>5</sup> TVEs replaced Commune and Brigade Enterprises, which had appeared in the 1970s (Naughton 2007: 90)

across the economy<sup>6</sup> (Naughton 2007: 271). Subsequent state disassociation from SOEs from the mid-1990s *'has meant converting vaguely defined public ownership into more explicit, legally defined ownership categories, sometimes involving privatization'* (Naughton 2007: 109).

In short, since initiating its reform process, China has experienced an impressive and fast-paced evolution of its economy – the World Bank (2017a) reports a 10 per cent average annual Gross Domestic Product (GDP) growth, making it *'the fastest sustained expansion by a major economy in history'*. Such has been connected with a fast-paced structural transformation, itself extending back to the pre-reform era. Structural change, to clarify, refers to the process in which a predominantly agrarian economy transitions to a largely service- or industry-orientated economy (Lewis 1954). China's experience is evidenced first in the physical expansion of its urban sector; cities have swelled outward and emerged in hitherto rural regions. Most extraordinarily, in just 25 years, a 120-kilometer stretch of coastal land in the Pearl River transformed from exclusively rural area to a primarily urban one, and two completely new cities, Shenzhen and Dongguan, have emerged between Guangdong's capital of Guangzhou and Hong Kong (Naughton 2007: 128). Other patterns, or indicators, of structural change exhibited in China include a declined share of labour employed in the agricultural sector (from over 80 per cent in 1978 to well under 50 percent in 2014). More detailed discussions of China's structural transformation processes will be reserved for *5.0 Analysis* and *5.6 Structural Change*.

Important to note, the legacy of the pre-reform era – China's uniquely deep-seated dualistic economy – has had a distinctive effect on the structural transformation processes of the economy. Structural change, as per the early stages of any developmental process, has witnessed China's rural-urban gap widen. But the roots of China's urban-rural divide can be traced back to the Maoist era, despite the imposition of the urban wage-freeze that saw average real wages of urban residents – regardless of preferential treatment – gradually decline<sup>7</sup>. The widening gap can be attributed to a number of factors. First, the expansion of the urban labour market to almost universally include women meant that most urban households had two incomes. Second, an artificially-created demographic advantage – presented in the form of the one-child policy initially imposed in large urban cities – meant that the dependency ratio of urban dwellers decreased in the same period. Thus, while urban wages were stagnant, the urban household income was rising (Naughton 2007: 132). Contrarily, across the same time period,

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<sup>6</sup> From a rural standpoint also, TVEs has bettered living conditions in rural areas by generating incomes outside agriculture (Naughton 2007: 271)

<sup>7</sup> Much of this decline in average real wages is attributed to the increase in younger workers in urban work units however, since these workers were ranked at the bottom of the wage scale (Naughton 2007: 132).

rural incomes were unchanged – a condition caused by rural overpopulation on the one hand and fixed agricultural procurement prices on the other, which respectively caused the marginal physical product and marginal value product in the agricultural sector to fall (Naughton 2007: 132). As a result, by the time China's market reforms were initiated there already existed a substantial urban-rural divide (2.6:1). Successful rural reforms meant that up until the 1990s, this gap actually narrowed. Thereafter, following a renewed polarisation of economic growth in the urban sector, this gap has – on a whole – been steadily rising; today, the urban-rural divide is far larger than it was in 1978 (Naughton 2007: 133); in 1978 urban income was 2.6 times greater than that of the rural resident, compared to 3.2 greater in 2005.

China's uniquely different process of structural change is reflected in the *de-urbanisation* that occurred between the 1950s and 1978. Where, despite the urban economy tripling between 1964 and 1978, the urban population share actually decreased by two percentile points (Naughton 2007: 126). Today, with the decline of policy constraints that had previously impeded in the individual's capacity for choice, urbanisation is increasingly the initiative of the millions of individual persons. Accordingly, China's urbanisation rate has grown to within the 'normal' range for a nation of its GDP per capita stature.

Nevertheless, China remains a developing nation: market reforms are incomplete, GDP per capita was just 8 028 USD in 2015, there persists a stark contrast in living standards between its most prosperous and 'backward' provinces, and – most poignant to this piece – its rapid economic expansion has brought with it a number of contemporary issues (World Bank 2017a). Among these challenges is China's rising regional inequality that has culminated in stark contrasts between China's most economically affluent coastal provinces and its less progressive regions (Milanovic 2005), its incomplete agricultural transformation, and the downward pressure on its welfare system attributed to an ageing population, which may all affect China's political stability. Further, despite an endowment of the world's largest labour force, China is experiencing high incidences of labour shortages in urban labour markets that may impact its ongoing economic development.

This account places its focus on the latter – Chinese labour market dynamics and labour shortages. Since first appearing in 2004, China has experienced two waves of labour shortages in its labour-intensive export-processing manufacturing sectors, which are concentrated in China's most economically progressive coastal provinces in the Yangtze and Pearl River Deltas (Litao, Yanjie 2010). The first wave persisted until 2008 and reappeared in 2009 following a brief disruption incurred by the Global Financial Crisis (GFC). The most recent wave has greatly exacerbated existing pressures on China's export-processing sectors – a phenomenon

triggered by an increased demand for manufactured goods as economies recovered from the GFC (Litao, Yanjie 2010). The economic implications of large-scale labour shortages are difficult to compute, particularly on a macroeconomic level, but are aptly illustrated by its effect on firms within the export-processing sector. In an investigation conducted by the Shanghai Investigation Group of National Bureau of Statistics throughout the Yangtze and Pearl River Deltas in 2010, 61 per cent of sampled firms were reported to have had difficulties meeting labour requirements and 25 per cent were unable to meet production demands as a result (Litao, Yanjie 2010). A dwindling labour supply is thought to be the causal factor in rising nominal urban wages in China's coastal provinces, which are weighing heavily on China's competitive advantage in low-cost manufacturing industries.

These labour-intensive, export-processing sectors have, since the 1980s, relied on China's large stock of migrant labour. Migrants, in this sense, refer to Chinese-national migrants travelling inter- and intra-provincially, especially from rural to metropolitan areas (Bao *et al* 2007). A surge in rural to urban migration occurred in the 1980s and 1990s alongside the aforementioned market reforms, which saw the easing of labour mobility restrictions enforced under the *hukou* system, which emerged during the 1950s, and describes the set of regulations and laws implemented to formally control population mobility and differentiate residential groups. The hukou system was developed as an internal passport system, effectively binding persons to their birthplace. In doing so, it worked to restrict labour mobility and prevent urbanisation. Since its initiation, it has become a central institutional mechanism, shaping China's collectivist socialism and its state industrialisation strategies (Cheng, Seldon 1994). The administrative hierarchy of the pre-reform era meant that under this system the panoply of ordinary services was, for urban workers, provided by the state<sup>8</sup>. In a stark contrast, members of agricultural collectives – considered 'lower-power' organisations with less financial resources – were generally required to pay for public services at full-cost (Naughton 2001: 118-119). Albeit reformed, the hukou system remains a core institutional feature of Chinese society, and defines urban-rural relations; *'Today, the system has worked chiefly as an entitlement distribution mechanism rather than to stop migration. Rural migrants are allowed to move to and work in cities (under the "temporary residents" category), but they cannot have a hukou in the destination where they stay'* (Chan 2013). Migration then, permitted but regulated, can be placed under two distinguishable classifications: hukou migration and non-hukou migration –

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<sup>8</sup> In the pre-reform era, just the 15 per cent of China's population considered 'urban citizens' were entitled to broad-ranging welfare services. Socialist welfare for urban workers included food, clothing, employment, education, housing, pensions, and healthcare. A status transferral of rural to urban *hukou* was governed by a stringent rationing regime (Wu 2013).

categorisations that are of explicit importance to this research, particularly in regard to data collection and subsequent analysis. ‘Hukou migrants’ refer to those migrants that are granted the same entitlements and social benefits as residents of the same local hukou and is acknowledged officially by the state<sup>9</sup> (Chan 2013); local hukous are usually granted to a select group of elite migrants however, namely the highly educated and the rich. Non-hukou migration is considered to be temporary<sup>10</sup>, where the migrant forms a part of China’s ‘floating’ population and is not legally eligible for the welfare benefits available to of the destination-hukou (Chan 2013). Migration undertaken by China’s floating population is thus oft ‘circulatory’ in nature. That is, non-hukou migrants move between their ‘base’ and other hukous cyclically – generally between rural and urban areas.

It is this floating population that has traditionally absorbed labour demands in urban China’s unskilled labour-intensive sectors. Since the 1990s especially, migrant labour has been pertinent to China’s export industry – accounting for as much as 80 per cent of the labour force in its major export centres, including Shenzhen and Dongguan (Chan 2013). The propensity of the floating population to migrate is generally thought to be driven by disparities in wage, educational attainment levels and labour markets, provincially (Bao *et al* 2007). The incentives to migrate then, are at the core, economical – and widespread. Between 1995 and 2000, with use of the 2000 Chinese Census, it is estimated that 144 million Chinese nationals migrated internally – a figure amounting to 12 per cent of China’s average provincial population in the same period (Bao *et al* 2007). Large-scale rural to urban migration is also said to be central to China’s rapid urbanisation; its urban population increased by 440 million between 1979 and 2009. Of that growth, approximately 340 million accounted for by urban reclassification and net migration (Chan 2013); the portion of urbanisation attributable to migration is, however, difficult to determine with the discrepancy between hukou and non-hukou migrants, and will be discussed in more detail later in this piece.

Overall, labour shortages are likely to reflect a shortage in migrant labour available to absorb labour demands in China’s export-processing sectors. A surge in interest of this very same point has seen economists turn to Arthur Lewis’ (1954) labour-surplus dual-sector model, many arguing that China has reached its Lewis turning-point (LTP) of economic development – *see 2.0 Theory and 3.0 Literature review*. But there exists reason to contend such findings.

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<sup>9</sup> Hukou migration is deemed ‘qianyi’, meaning *migration* (Chan 2013).

<sup>10</sup> Non-hukou migration is ‘temporary’ in the sense it is considered as ‘renkou liudong’ by the state, loosely meaning *floating population*.

## 1.2 Aim, Research Questions and Hypothesis

Marking a point of departure then, the aim of this research is to evaluate whether China has indeed reached its LTP and, in doing so, offer comprehensive explanations for labour shortages in China's export-processing sectors. To do so, the questions to form the foundation of this investigation are:

1. *'Why is China experiencing labour shortages in its labour-intensive, export-processing sectors?'*
2. *'Has China reached its Lewis Turning Point?'*

From the outset, it is hypothesised that labour shortages in China's export-processing sectors cannot be attributed to China meeting its LTP, but rather to factors related to China's unique political economy and institutional make-up.

## 2.0 Theory

Before proceeding with the research, it is imperative to have a thorough understanding of the aforementioned dual-sector model, which will ultimately guide the author's efforts to determine why China is experiencing labour shortages in its export-processing sectors. In his seminal paper *'Economic Development with Unlimited Supplies of Labour'* (Lewis 1954), Arthur Lewis' ideas on organisational dualism, structural change and labour reallocation in underdeveloped economies revolutionised development thinking of the time<sup>11</sup> (Ranis 2004). A testament to Lewis' progressive thinking, the dual-sector model remains relevant and applicable to understanding the development trajectories of economies today (Todaro, Smith 2015: 124).

By employing classical economic thinking in combination with historical observations on industrialised nations, Lewis (1954) established a broad, but substantial, representation of the development process. The model effectively divides the economy into two sectors: an overpopulated subsistence (or agricultural) sector and a capitalist (*or* industrial) sector (Leeson 1979). The subsistence sector, as outlined by Lewis (1954), includes farmers, petty traders, domestic workers and casuals; while the capitalist sector, vaguer, describes *'that part of the economy which uses reproducible capital, and pays capitalists for the use thereof'* where services of labour are required and paid for accordingly (Lewis 1954). The model pertains that in its early phases of development, an unlimited supply of labour exists in the subsistence sector. Such a phenomenon – an unlimited supply of labour – is not said to be true of all countries, but where the *'population is so large relatively to capital and natural resources, that there*

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<sup>11</sup> The model was refined and formalised further in 1964 by Gustav Ranis and John Fei in *'Development of the Labor Surplus Economy: Theory and Policy'* (Fei, Ranis 1964)

are large sectors of the economy where the marginal productivity of labour is negligible, zero, or even negative' (Lewis 1954). In what can be deemed 'disguised unemployment', the subsistence sector is so saturated with labour that a loss of one unit of labour would not negatively implicate productivity, nor would adding a unit increase it – as depicted by model (b) in fig.1.

As per the model, abundant surplus labour in the subsistence sector is available to absorb growing labour demands of an expanding capitalist sector. This can occur because the marginal productivity of the subsistence sector is presumed to be below subsistence wage – and therefore institutionally determined – which effectively establishes a *wage floor* in the capitalist sector (Golley, Meng 2011). With the basic assumption that there exists no barrier to labour mobility between sectors, the margin between subsistence and capitalist wages offers the primary incentive for the transfer of labour. Highlighted in (a) of fig.1, the wage floor permits that the expansion of, and absorption of labour in, the capitalist sector occurs exclusive of any impact on wages in either sector (Golley, Meng 2011).

This, in accordance with the model, holds true until surplus labour is exhausted; where labour transfer is determined by the speed of the output expansion of the capitalist sector, and where output expansion and

**Fig.1: The Lewis Model of Economic Growth in a Dual-Sector, Surplus-Labour Economy**

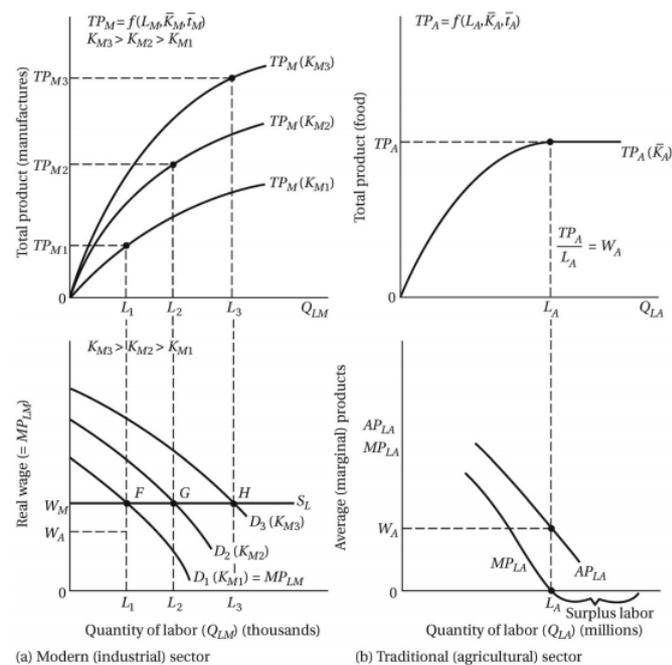
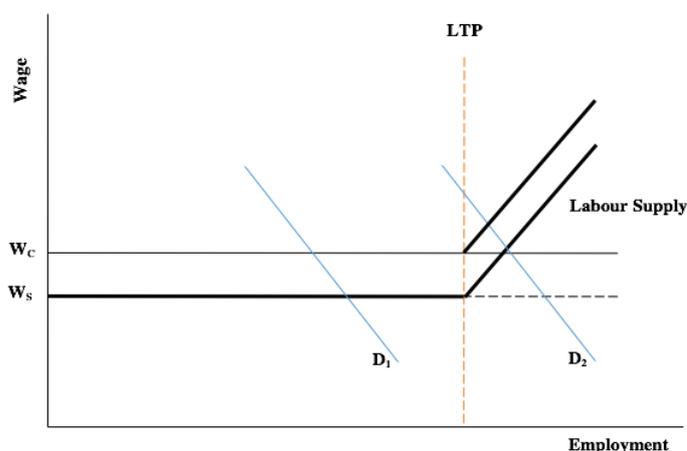


Image from Todaro and Smith (2015: 125)

employment growth in the capitalist sector is based on the speed in which capital accumulation and re-investment in the industrial sector occurs (Todaro, Smith 2015: 124). Once that surplus labour is exhausted, the economy is said to reach a turning point – aptly named *the Lewis Turning Point* (LTP). As depicted in Fig.2, the labour supply in the subsistence sector is assumed to be perfectly elastic until the point (LTP) in which the marginal productivity of the agricultural sector exceeds subsistence wage. After this point, to facilitate continued employment and production expansion in the capitalist sector, labour transfer must be

**Fig.2: Graphical representation of the Lewis Turning Point**



*Illustrative created by the author*

transformation incites technological- and capital-intensive growth (Golley, Meng 2011; Todaro, Smith 2015: 124-129).

The Lewis dual economy model effectively illustrates the relationship between the labour market and broader economic development. But as for any economic theory, the model carries with it a number of assumptions that deserve mention. Aside from the assumed free labour mobility and perfectly elastic labour supply already referred to, other major assumptions include – but are not limited to – wages in the capitalist sector remaining constant until the labour supply is depleted, and that both the movement of labour to, and employment growth in, the capitalist sector is directly proportional to the speed at which capital accumulation occurs in that sector (Todaro, Smith 2015: 124-129). These assumptions ignore context-specific variables and institutional mechanisms that may implicate the applicability of the model to real-life cases.

### 3.0 Literature Review

The appearance of large-scale labour shortages in the country endowed with the world’s largest labour-force has spiked the attention of economists and economic historians alike. But the research papers arising from this scholarly interest have not been united in their conclusions. Instead, much contention surrounds explanations regarding Chinese labour shortages, as evidenced by existing literature within the prevailing dialogues. Section 3.1 *Previous Research* points to the stark disagreement as to the causes of those labour shortages and particularly as to whether China has reached its LTP.

incentivised by increasing the wage level in the capitalist sector; this holds true since, in a post-LTP economy, the marginal productivity of the traditional sector has progressed above the subsistence wage, and is instead to be determined by such (Liu 2015). Thus, wages in both sectors rise and ultimately converge, and the associated structural

### 3.1 Previous Research

Using official statistics in conjunction with micro survey data, Cai and Wang (2009) investigate employment rates, economic expansion and structural changes in Chinese labour markets during its gradual opening up since the late 1970s. In doing so, they assert that China's growth trajectory supports the Lewisian dual sector model in the sense that its economic growth has generated widespread, accessible job opportunities for unskilled workers in both rural and urban areas<sup>12</sup>. That is to say, the country's reform process has allowed a market economy carrying a labour allocation mechanism to develop, and its diversifying industrial sector has greatly absorbed a previously unlimited labour supply (Cai and Wang 2009). By further arguing that China's transition has alleviated previously-existing barriers to structural change and the transfer of labour – including the hukou system, welfare policies and government allocation of labour – Cai and Wang (2009) predict that China is approaching its LTP and that its labour supply is rapidly diminishing.

Accordingly, they claim that there is little evidence to suggest that a reservoir of surplus labour still exists, and if it does, because of a favourable demographic dividend, it is concentrated in the older age group. Further indication of a diminishing surplus labour is found in underestimated urban unemployment rates and rising wages. In acknowledging that statistical reforms have lagged behind reforms of the general economy, Cai and Wang (2009) point to the flaws of existing unemployment data. Since registered unemployment statistics do not include persons dismissed from work that are eligible for unemployment benefits, the indicator does not depict the true extent of urban unemployment; by using survey data, they show that urban unemployment is significantly higher than is reported. In accordance with their argument, and further supporting an approaching LTP, average urban real wages have been rising since the mid-1990s; and while not as significant, real wages migrant workers have too shown signs of growth (Cai, Wang 2009).

Golley and Meng (2011) contest such conclusions, suggesting that while *nominal* wages do appear to be rising, evidence of real wage increases – like those presented by Cai and Wang (2009) – are based on biased data<sup>13</sup>. Thus, claims of depleted rural labour force are unsubstantiated. They argue that, given its unique institutional setting, the Chinese economy does not fit the 'normal' economy described by in the Lewisian dual-sector model, and exhibits

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<sup>12</sup> In the early reform years, the primary means of labour absorption occurred via TVEs in rural areas, later transitioning to private enterprises (after the mid-1990s) – both major actors in the reduction of rural surplus labour (Cai, Wang 2009).

<sup>13</sup> 'Evidence of rapid wage growth based on aggregate wage statistics give an incomplete and biased picture, reflecting only official employment in state-owned enterprises and large private enterprises, while ignoring significant parts of the urban economy in which many low-skilled workers and migrants are employed' (Golley, Meng 2011).

instead elements of labour market segmentation – where migrant workers can only access very specific, low-paying employment (Golley, Meng 2011). In line with this thinking, concentrated labour shortages in certain sectors, and in certain regions, does not provide evidence of labour shortages or an exhausted labour surplus across the whole (Golley, Meng 2011).

Using data sourced from the RUMiCI surveys<sup>14</sup>, their analysis goes on to show high levels of underemployment in China's rural sector, a wide gap in the earnings differentials between migrant workers and other rural workers, and migration rates for the rural population which are relatively low (just 20 per cent in 2011) (Golley, Meng 2011). Further empirical evidence to refute any suggestion that China has met its LTP is offered by Golley and Meng's (2011) projections of the migrant labour stock up until 2020. They find, based on the hypothetical removal of certain barriers to migration, that the migrant labour stock would be double the estimated 150 million at the time of the study. The barriers referred to here are those still-prevalent institutional and policy-related that restrict labour mobility and see to it that, for example, migration is most feasible when an individual is unmarried – surveys found that individuals return to their rural *hukou* to have families. This indicates that migration is plausible for just part of the working life of the rural individual and that the market's labour force allocation mechanism is inadequate (Golley, Meng 2011).

In criticising previous authors' disregard of subsistence sector marginal productivity, Liu (2015) embarks on an altogether different analytical approach – and arrives at an altogether different conclusion. By generating an original index for subsistence wage and focusing on the marginal productivity of labour in the subsistence sector, Liu (2015) finds that China surpassed the LTP somewhere between 2002 and 2004. Liu (2015) denotes early that if the '*marginal productivity of the traditional sector exceeds the subsistence wage, then the economy has passed the LTP*', and points to inaccurate indexes for subsistence wage in other research<sup>15</sup>. By comparing the two data-sets generated by Liu (2015) – marginal productivity of rural labour and subsistence wages – the study shows that marginal productivity surpassed wages in 2002; and following 2003, marginal productivity rose remarkably, swelling to as much as 50 per cent by 2008. While these findings alone offer strong support for China already having met its LTP,

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<sup>14</sup> The Rural–Urban Migration in China and Indonesia (RUMiCI) surveys refer to the project that spanned from 2008 to 2011. It is comprised of a 'migrant survey' (5000 urban migrant households) and an 'urban household survey' (5000 urban households) across the same fifteen cities, as well as a 'rural household survey' (8000 rural households that included non-migrant and migrant workers) in the provinces in which the cities in the migrant and urban household surveys took place. The provinces selected were the five leading migrant-sending and four biggest migrant-receiving provinces (Golley, Meng 2011).

<sup>15</sup> Minami and Ma (2010); and Islam and Yokoda (2008). Liu (2015) claims that by using calculating subsistence wage by utilising annual per capita annual expenditure and income of rural households, the resulting subsistence will be overestimated and conclusions regarding China's LTP will be inaccurate.

Liu (2015) corroborates his initial findings by additional means, including wage data of temporarily employed rural workers – referring to short-term employees’ wages increasing after 2004, which had previously been stagnant.

Departing from economical reasoning and explicit testing of the LTP, Litao and Yanjie (2010) propose demographic and socio-economic justifications for persisting labour shortages in China’s coastal export-processing sectors following the GFC. They point to a transformation in the expectations – both economic and social – of migrant workers that have traditionally absorbed unskilled jobs in China’s manufacturing sectors. Using data for educational-attainment and minimum-wage adjustment by locality, Litao and Yanjie (2010) argue that second-generation migrants – who have accumulated higher levels of education than their predecessors – demand better working conditions, higher wages and access to welfare benefits currently unattainable in other hukous. According to Litao and Yanjie (2010), these changing expectations have exacerbated labour shortages because of recent movements, and development of, industry in inland provinces. As a result, employment opportunities have become increasingly available closer to migrants’ local hukous. Institutional barriers then, in conjunction with a lack of economic and social incentives for an increasingly educated cohort, mean rural labourers are not willing to migrate to coastal urban areas for unskilled work (Litao, Yanjie 2010). Finally, though not explicitly investigating it, the authors allude to the possibility of China approaching its LTP.

### **3.2 Motivation for Further Research**

The preceding section has, in an objective manner, highlighted the prevailing academic commentary on the development of China’s dual sector economy. In doing so, it has pointed to the stark disagreement as to whether China has reached, or is approaching, its LTP. Different explanations to China’s labour shortages can be attributed to the data collection, processing and analytical methods that vary from research to research. As a result, there exists no definitive conclusion to rationalise persisting labour shortages, and the debate as to whether China has reached its LTP continues. Accordingly, and as outlined in *1.2 Aim, Research Questions and Hypothesis*, this thesis intends to evaluate, and ultimately contribute to, the ongoing debate.

The surge in scholarly attention toward the development of China’s dual sector economy is not without reason. Both domestically and internationally, the importance of understanding China’s labour shortages is unprecedented. Further research as to whether China has met its LTP is critical to understanding, and reacting to, trade and production distortions that may arise from rising labour shortages and rising wages. And, somewhat in line with this, will be instrumental in moving forward with poverty reduction and combatting unequal distributions

of economic growth. Presently, contemporary China stands as the world's leading exporter, where in 2015, its export industry accounted for almost 22 per cent of its total GDP (Statista 2017; World Bank 2017a). Much of this export share has relied on the production output of labour-intensive firms, in which China has long held a comparative advantage in. But if China is found to exist in a post-LTP condition, it can expect a loss in this comparative advantage. Thus, where the profit margins in labour-intensive firms are not wide enough, and where industrial upgrading does not keep pace, rising wage demands may force companies to relocate to countries that hold a surplus labour to absorb factory jobs and sustain low production-costs (Litao, Yanjie 2010). More explicitly, evolving wage and production structures will implicate China's *low labour cost* advantage. This, in addition to the threat of relocation, is likely to have direct effects of China's booming export industries (Yang, Chen, Monarch 2010). Liu (2015) points to this eloquently: *'from the perspective of the trade structure, labour-intensive products, which build their competitiveness on a low wage, lose not only their competitiveness but also their exporting shares.'* Thus, in order to maintain its positions as the world's leading exporter, a post-LTP China will have to move toward capital- and technology-intensive output to compensate for losses in labour-intensive products and export shares (Liu 2015).

From a national standpoint, the importance of further investigating the development of China's dual economy is evidenced in the policy implications of the LTP being reached (Liu 2015). Given that the LTP is an effective indicator of an economy's developmental progress, whether China has surpassed or is approaching its LTP – that is, whether China still holds a sizeable surplus of rural labour – will directly affect forthcoming state development decisions. If China's prospective LTP is not within sight, state investment should be geared toward expanding employment opportunities to absorb surplus labour (Liu 2015). Whether this be through supporting the development of more labour-intensive industries or by liberating barriers to labour mobility to fill existing vacancies in the urban sector, would be subject to the findings of the research. Quite on the contrary however, if China is found to have met or passed its LTP, the state will be more inclined to seek alternative mechanisms for inciting growth; a post-LTP economy would warrant the implementation of policy that seeks to transition the economy away from labour-intensive industries, likely by means of technological and industrial upgrades (Liu 2015).

These factors, among others, warrant further research into the relationship between China's economic development and its labour markets; a meeting of its LTP would see far-reaching implications – domestically and internationally – that will require prompt and appropriate political and economic response.

## **4.0 Methodology**

### **4.1 Research Design**

In accordance with the aim and accompanying research questions – outlined in *1.2 Aim, Research Questions and Hypothesis* – the research design of best-fit will be, at least at its inception, deductive in nature. This refers to the intention of the study to determine whether China's labour shortages can be explained by means of it reaching its LTP, and denotes that the research must initially be guided by Lewisian dual-sector labour-surplus theory. In that Lewisian theory will be applied solely to the Chinese context, the research also employs a longitudinal and explanatory case-study strategy to its investigations (de Vaus 2001: 221; Bryman 2012: 59-63). It is intended that the specific elements of the research design will, in conjunction, help to determine whether the LTP has been met while accounting for the multifaceted levels of Chinese history – economic, political and institutional.

Already alluded to then, the research will employ a mixed methods approach, conducted by means of a desk study. A desk study is considered most appropriate for this particular investigation considering both the infeasibility – financially and timewise – of collecting primary data, and the availability of a breadth of existing, quality data applicable to the research. The mixed-method, desk-study strategy will permit that resolve over whether China has reached the LTP is achieved, and will be instrumental in offering holistic explanations of the driving forces behind widespread and persisting labour-shortages in contemporary China – especially if data does not the support China having passed, or met, its LTP. In line with this, the analysis has been formulated to transpire over two phases. The first, on testing Lewisian theory and the LTP, will be depend entirely upon quantitative data. The second will rely on qualitative data; where a qualitative-analysis – itself guided by an analytical – will be utilised to explain the findings of the quantitative analysis (Bryman 2012: 633-634).

### **4.2 Data Collection and Analysis**

As outlined in the previous section, the analysis will be conducted over two phases: first of quantitatively testing whether China has met its LTP, and the second of explaining the findings of the quantitative analysis, for each indicator. As a desk-study, both stages will rely on entirely secondary data. Data-collection and subsequent analysis has been methodised accordingly.

#### **4.2.1 Data Collection**

Quantitative data will be centred around examining whether China's labour shortages can be attributed to it having met its LTP. Therefore, a number of quantitative indicators have been

determined to facilitate the analysis. Using 1990 as the baseline year<sup>16</sup>, longitudinal, panel data will be collected for indicators deemed both applicable and attainable. Such includes data for wages, rural-urban wage inequality, aggregate rural to urban migration, sectoral share in GDP and urbanisation. Where panel data cannot be sourced, cross-sectional data will be utilised to provide a general understanding of the situation in the selected year, and thus some scope of condition in years leading up to it; rural employment rates, for example, will be analysed for 2009, giving insight into the rural employment structure at a point when labour shortages were prevalent in urban export-processing sectors. Quantitative data will be sourced from internationally recognised and accredited statistical platforms such as the World Bank, ILO and the National Bureau of Statistics of China. Thereafter, qualitative data will be used to explain or support the quantitative analysis. Accordingly, an analytical framework must be established. As has already been alluded, this framework will be founded on institutional and political economic reasoning. The decision of which stems from preliminary research that has highlighted how certain aspects of China's institutional framework have been used to explain functional-flaws in marketization processes of its labour markets – particularly hukou – but have failed to account for the full scope of China's institutional network and its implication on China's labour market dynamics. For this reason, the qualitative analysis will be guided by an amalgamation of institutional and political economic insights, forming a framework in its own right. With that, qualitative data will be derived from deeply-entrenched institutional underpinnings and the political frameworks that support or attempt at overcoming them; these include various laws and policies such as minimum wage standards, as well as larger structures like hukou, the system of property rights and the social security network. Qualitative data will be sourced from literature, secondary studies and media entries. In combination, the scope of qualitative data will provide explanatory insight into the trends depicted, and gaps left by, the quantitative analysis.

#### **4.2.2 Data Analysis**

Establishing first whether the LTP has been met requires that the longitudinal time-frame under investigation extends beyond the first documentation of large-scale labour shortages in 2004. This will allow the author to track changes, trends and transformations of the Chinese economy – or otherwise – that may be attributed to the LTP. For this particular case-study, the

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<sup>16</sup> The baseline year was set at 1990 for two primary analytical reasons; first because acute labour shortages were observed in 2004 and second that internal labour mobility took off in the early 1990s. The baseline thus allows an appropriate timespan for analysing whether the trends of the selected indicators up to – and after – the first wave of labour shortages are indicative of China having met its LTP (Park 2017). A baseline extending into the era of strict mobility controls would be ineffective to the study since the Lewis model assumes the perfect elasticity of labour.

most appropriate historical starting-point is deemed to be 1990, because market-reforms occurred far enough in the past that mass migration of labour was in full effect by 1990, and it is also a noteworthy 14 years prior to the first wave of labour shortages in the Yangtze and Pearl River Deltas (Litao, Yanjie 2010). The investigation should be carried through until present, especially to promote the completeness of the study (Bryman 2012: 633-634). The quantitative analysis of each individual indicator will offer a general consensus on whether China has met its LTP, and thus if labour shortages in China's export-processing sector can be attributed to it.

Thereafter, the research is designed to adjust in accordance with, and in response to, the results of the quantitative theory testing. If trends depicted by the panel data do not suggest the LTP has been met in China, idiographic explanations will be offered to fill the knowledge-gaps left by the data and to generate a more holistic understanding of persisting labour shortages in China's export-processing sectors. In this phase of the investigation, context-specific factors – relating to institutional or political frameworks – specific to the aforementioned analytical framework will offer explanations to questions left by the quantitative analysis, and ultimately highlight possible limitations to the Lewisian model or point to its inapplicability in the case of China. Under such an instance, an expansion of the theory or its underlying assumptions may be empirically justified to account for complexities pertinent to real-life economies (de Vaus 2001: 221).

### **4.3 Limitations**

As per any research, this dissertation carries with it a number of limitations. While these limitations have been minimised to the capacity of the author, they remain important to bear in mind. First and foremost is the study's reliance on secondary data. The utilisation of data not sourced by the author risks the results being tarnished by unknown biases held by the original data-collector. To avoid such, where available, the author has utilised primary data from official international statistical channels that adhere to collection protocol and data cross-checking. Reputable data sources as such include the World Bank, Overseas Development Institute (ODI) and the International Labour Organisation (ILO). Where data has not been sourced from one of the aforementioned avenues, and where the data has been retrieved from a scholar, a cross-check has been conducted from the author independently. That is, secondary data sourced from secondary avenues have been examined for legitimacy and credibility. Only original datasets – before any secondary analysis has been conducted by another scholar – have been utilised. And the utilisation has only occurred if that original data was retrieved by a reputable avenue (originally sourced from the National Bureau of Statistics of China (NBSC), for example).

Another potential limitation is the analytical approach taken. The qualitative analysis used to explain any discrepancies in the quantitative data has underpinnings in China's political economy and institutional setting, as mentioned. Because of this, there exists a possibility that other important explanations are not accounted for.

Finally – though more of a discrepancy rather than an outright limitation – not all elements and indicators of the Lewis dual-sector model have been tested. In focusing on whether China has reached its LTP, only those indicators pertinent to the LTP have been investigated, i.e. wages, urbanisation and employment rates. While most of these were attainable, comparable wage data for income inequality could not be sourced. Thus, wage inequality is unfortunately absent from the analysis. While ultimately desired, the inclusion of all other relevant indicators, complete with in-depth analyses renders the absence of income-inequality as indicator undisruptive to the final results. Other elements of the Lewis model, such as whether capitalist sector profits are reinvested into the sector have been ignored. However, since much of this dissertation is centred on testing for an LTP in China, ignoring elements of the Lewis Model not pertinent to the LTP is warranted.

## **5.0 Analysis and Discussion**

### **5.1 Structural Transformation**

Central to the theory of economic development with unlimited supplies of labour – at least at the macro level – is the transition of an economy from primarily agrarian to primarily industrial; a process which is facilitated by the transfer of labour from the subsistence sector to the capitalist (Lewis 1954). Before analysing microeconomic indicators of Chinese economic development, it is thus necessary to form a broad and comprehensive picture of macroeconomic transformations made by China since the initiation of market reforms in 1978. To do so, structural transformation will be reviewed in light of urbanisation processes and changes in sectoral share in GDP. These processes are strongly interlinked.

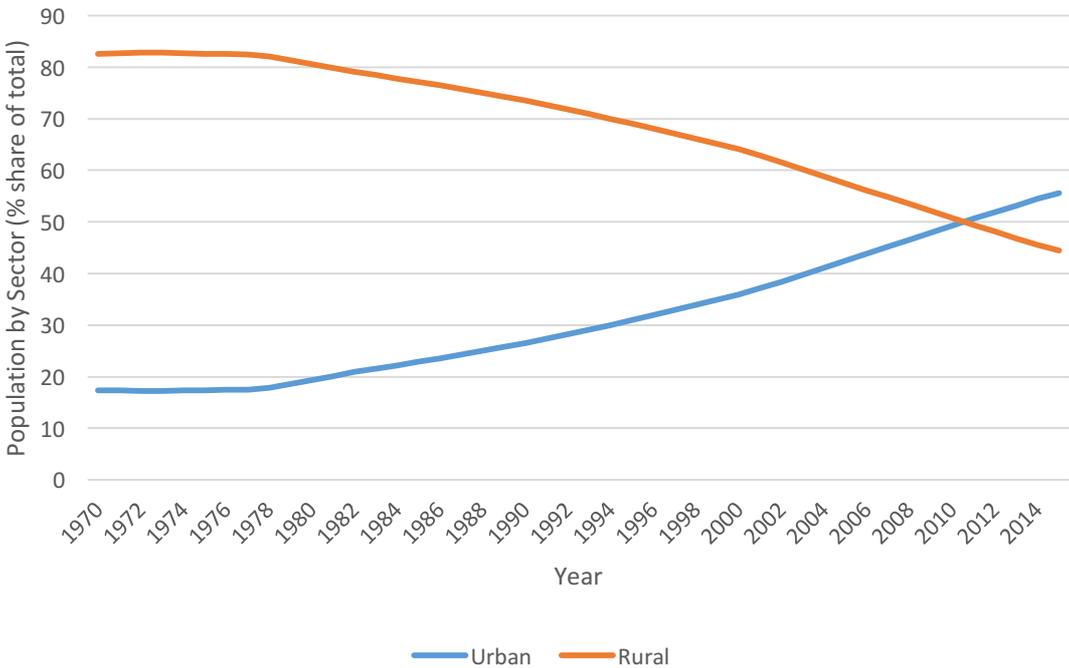
#### **5.1.1 Urbanisation**

Pertinent to the model is the transfer of labour from the subsistence to the capitalist sector; where, as a general rule, the industrial sector equates with urban areas and the capitalist with agricultural; and where this process of urbanisation is incentivised by a higher wage floor in the latter (Golley, Meng 2011). Given the perfect elasticity of this labour, as projected by the dual-sector model, as an economy undergoes processes of expansion, development and transformation, the share of the population living in urban areas – where the capitalist sector dominates – will steadily increase over time. Simultaneously, the share of the population living

in rural, subsistence areas decreases. This process of urbanisation is central to the transition of an economy from primarily agrarian to industrial, and is a key indicator of Lewisian development (Lewis 1954).

Fig.3 depicts urbanisation patterns in China from 1970 to 2014. Prior to the instigation of market reforms in 1978, the data portrays the agrarian, centrally-planned society of Maoist China that has been well described by now. Strict enforcement of hukou during this era is reflected in stagnant mobility of labour in the lead up to 1978, and non-existent urbanisation processes. In 1978, over 82 per cent of the Chinese population was confined to rural areas. Thereafter, as China’s labour allocation mechanisms underwent marketization processes and the economy began opening to international markets, a heightened demand for labour in the capitalist sector saw the country steadily urbanise (Ercolani, Wei 2011). Despite persisting barriers to labour mobility – see 5.4 Labour Mobility and Migrant Data – the distribution of labour in China has evolved entirely. Between 1978 and 2014, the share of population living in urban areas increased from 17.9 to 55.6 per cent, as seen in fig.3.

**Fig.3: Chinese Urbanisation Patterns (1990-2015), Population by Sector as Share of Total**  
(Data sourced from World Bank (2017b))

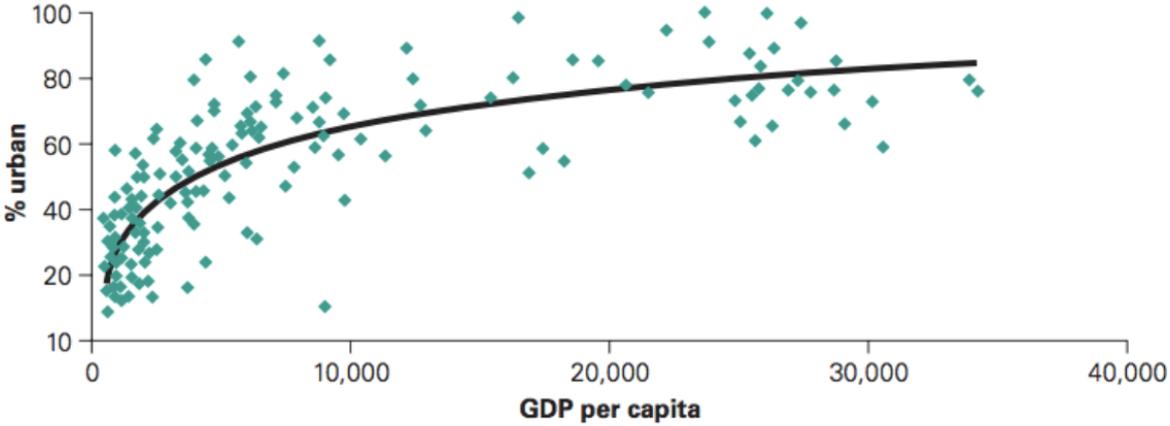


While an impressive feat, the experiences of urbanisation and growth in some of the world’s most advanced economies indicate that China’s transformation is far from complete. In an analysis conducted by Annez and Buckley (2009: 3), it was found that rarely did economies reach GDP per capita levels of over 10,000 USD without having met a 60 per cent

urbanisation rate. Fig.4 illustrates these findings using data collected from statistical platforms such as the World Bank and the Penn Tables, depicting a relationship between increasing GDP per capita and the share of population living in urban areas (Annez, Buckley 2009: 4). While a cross-sectional scatterplot of countries in 2000, the trend line emitted in fig.4 offers insight into the development trajectories of the world’s leading economies; where economic growth has generally accelerated after a given point in the urbanisation process – 60 per cent for the United States, for example. Interestingly, in China the urbanisation rate was half that of the United States when GDP per capita began its rapid take-off (Annez, Buckley 2009: 4). Unique in its trends, China has made impressive and significant progress. But at a GDP per capita of just over 8,000 USD and an urban population of 55.6 per cent in 2015 (as per fig.4), China nonetheless appears to comply with the story told in fig.4.

In China, growth of urban populations attributes an amalgamation of net migration and

**Fig.4: Urbanisation and GDP per capita across countries, 2000**  
 (Graph retrieved from Annez and Buckley (2009: 3))



Source: Data on urbanization: World Bank *World Development Indicators* 2005. Data on per capita GDP: Heston, Summers, and Aten n.d.; Penn World Table Version 6.2; Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, real 1996 GDP per capita (chain), September 2006 (<http://pwt.econ.upenn.edu/>).

reclassification of rural areas to urban – as mentioned in *1.0 Introduction* (Chan 2013; Wan 2008: 44). In the 1990s, rural to urban migration explains 55 per cent of total urban population growth, making it – in terms of labour capacity at least – the most crucial factor in structural transformation processes of that period. This means that rural to urban migration, which equates with the transfer of labour from a state of underemployment to gainful employment, was a key driver in the expansion of the capitalist sector, and ultimately the economy as profits are reinvested into industry, during this period (Lewis 1954; Ercolani, Wei 2011). A further 23 per cent of that urban population growth is the result of rural to urban reclassification (Wan 2008: 44). While this does not denote physical movement of residents from rural to urban areas as is

central to the Lewis model, it is representative of the transformation occurring within the country, at the local level; reclassified rural areas are generally those that have undergone significant and rapid growth – and where the residents within that area have shared in that progress (Wan 2008: 44). When viewed in isolation of other indicators – especially of 5.4 *Migration* – acknowledging migration and reclassification as key drivers of the urbanisation in China since 1978 provokes LTP-thinking.

That is to say, the trends depicted in fig.3 largely comply with Lewisian theory of dual-sector economic development. Processes of urbanisation are reflective of the transition of labour from the subsistence to capitalist sector, where the pace of urbanisation is determined by the rate of capital accumulation and subsequent re-investment occurring in that sector (Todaro, Smith 2015: 124). This suggests that economic development in China has thus far been driven by the movement of labour from sectors where the MPL is zero, to sectors where MPL is above zero; this means that overall, the trends portrayed in fig.3 are indicative of the structural change processes described in 1.0 *Introduction*. But while these processes run in agreement with Lewis' (1954) dual-sector model of economic growth, the trends do not necessarily support the arrival of an LTP. Rather, they suggest the approach of it. Support for an approaching LTP is founded in a number of factors. First, the urbanisation process witnessed in fig.3 shows no sign of levelling off. Even as the data points inch closer to 2014, the steepness of the incline – or decline, when viewed in respect of rural population share – does not decelerate. Deceleration of urbanisation would be a key indicator of a LTP since, by definition, the pool of labour able to transition from rural to urban areas will have been exhausted. This testament is further supported by data presented in fig.4, which illustrates the urban population share of the most advanced economies is about 80 per cent. Since China's urban population share in 2014 was nearing 56 per cent, and the rate of urbanisation did not appear to be slowing, it is not unreasonable to argue that the country was in 2014 still approaching its LTP. Based on this alone, claims China had surpassed its LTP between 2002 and 2004 (Liu 2015) are called into question; when acute labour shortages were observed in 2004, China's urban population share was just 41.1 per cent of China's (World Bank 2017b). Thus, while agricultural workers no longer comprise the majority of China's workforce, China still '*remains on the doorstep of a modern economy, with much transformation still ahead*' (Naughton 2007: 152).

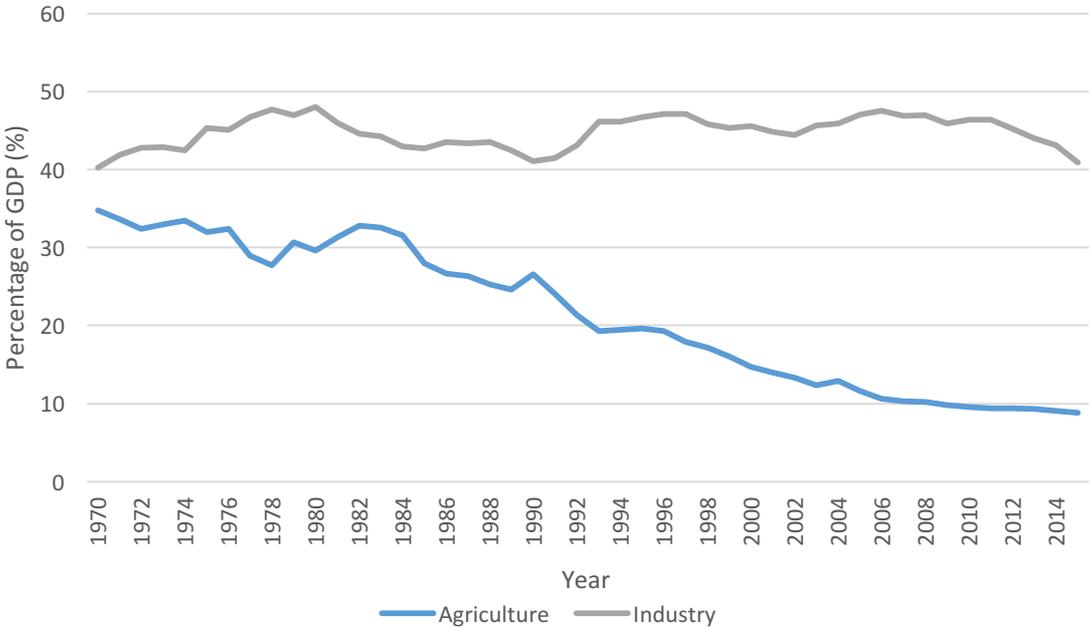
### **5.1.2 Changes in Sectoral Share of GDP**

Urbanisation processes are directly connected to changes in relative sectoral importance in national GDP (Ercolani, Wei 2011). The movement of labour from rural to urban sectors

coincides with movement of labour from non-productive to productive employment. This sectoral reallocation of labour transforms the relative importance of sectors in the economy, where increasing productivity in the urban sector fuels the economic development of the broader economy as capital is accumulated (Ercolani, Wei 2011; Todaro, Smith 2015: 124). As the economy shifts from agrarian to industrial and from a state of labour-surplus to one of labour-scarcity, one would expect to witness a decline in the relative importance of the agricultural sector in GDP. This occurs despite increases in the MPL in agriculture when surplus labour is exhausted, because while productivity gains occur in agriculture – especially with technological upgrades – capital accumulation is concentrated in industry. Effectively then, the process marks the shift of a country’s centre of economic activity from rural to urban, and from agricultural to industrial – prompting the diversification of the economy and the institutions underpinning it (Oyelaran-Oyayinka, Lal 2016).

China is particularly unique in this instance, and abnormally difficult to analyse – a strange legacy of Maoist China. Before initiating reforms, policy was centred around industrial development – as has been highlighted. This prioritisation of industry and industrial-led growth, in conjunction with the need to secure budgetary revenue, meant two things. First, a high-price policy was followed for industrial output, especially during the Big Push, resulting in the

**Fig.5: Sector as Share of Chinese GDP (1970-2015), value added**  
 (Data sourced from World Bank (2017b))



distortion of the Maoist-era price system. In essence, industrial output was overvalued and agricultural output was undervalued. The implications of this is that contributions of industry

to China's GDP were overstated up until the reformation (Naughton 2007: 153). Bearing this in mind, it is also important to note that the development strategy and policy of Maoist China was rather successful in terms of industrial growth, *'leading to a precocious real development of industry'* (Naughton 2007: 153). Accordingly, despite distortionary prices, the sectoral importance of industry in GDP in 1978 is unusually large for a country that, at the initiation of the reforms, had an 82.1 per cent rural population share – see fig.3. Fig.5 illustrates that in the lead up to – and year of – the reformation, the largest contributor to China's GDP was industry. Industry made up 47.7 per cent of GDP, compared to just 27.7 per cent from agriculture – the remaining from the service sector, which has been excluded from the graph since it is an element not pertinent to LTP-testing and thus this piece. The post-1978 reforms saw the rectification of much of these price-distortions as relative prices for industrial output – especially manufactured goods – were driven down as government controls were eased and the economy opened up to international trade and subsequently, competition (Naughton 2007: 154). In the years following, industry held the lowest rates of inflation while remaining the fastest growing sector. *'Price changes and real growth rates were thus negatively correlated in China. This is a common phenomenon observed in growing economies, but the effect is especially large in China because the initial-period price distortions were very big and growth has been especially rapid'* (Naughton 2007: 154). This meant that, when held at constant current prices, output across each sector grew at comparable rates. Accordingly, and aptly depicted in fig.5, sectoral contributions of industry to GDP fluctuate but stay consistently between 40.9 and 48.1 per cent. Thus, China does not *appear* to exhibit steady growth of industry as one might expect from a country undergoing processes of urbanisation witnessed in fig.3. To specify this point further, the share of industry in GDP only surpassed 1978 levels once – in 1980 (when it reached 48.1 per cent) (Naughton 2007: 154). But in acknowledging China's high-price policy and heavy-industry development focus of the pre-reform era, the trends projected in fig.5 tell a bigger story. As market forces began replacing distorting forces, such as the subsidisation of industrial output, the nominal share of industry in GDP decreases. The continued dominance of the industrial sector in GDP thus indicates – without high-price policy and subsidisation to boost the sector – that the sector was in fact growing as marketization forces replaced Mao's centrally-planned economy. This notion is further supported by the gradual decline of agriculture's sectoral importance in GDP following a short burst between 1978 and 1983. The immediate and rapid surge of agriculture in GDP reflects the success of rural reforms; the dismantling of collectivization saw agricultural output rise steeply and millions of farmers move into non-agricultural, rural sectors – particularly TVEs

(Naughton 2007: 152). Yet, in testament to the growth of industry (as well as services) and urbanisation, fig.5 shows agriculture's share in GDP declined almost consistently<sup>17</sup> thereafter.

While sectoral contribution to GDP may be slightly distortionary and misleading – somewhat of a legacy of China's planned economy – when looked at closely, the trends are suggestive of structural change processes in the sectoral composition of China's economy. The relatively stable percentage share of industry is indicative of growth of that sector, considering the transition of that sector from one that was artificially boosted to one governed by market forces with the lowest inflation rates (Naughton 2007: 154). But, the decline in the relative importance of agriculture in GDP marks the most reliable indicator transformation processes in the Chinese economy. Coinciding with steady rates of urbanisation, the data collected for structural change all point toward Lewisian theory of economic development; where the transition of surplus labour to the capitalist sector stimulates capital accumulation and generates profits in that sector (Lewis 1954). Since the data presented in fig.5 complies with such theorisation, when viewed in isolation of other indicators, it may be argued that China has reached its LTP. But, using the same reasoning presented for the analysis of urbanisation trends, when other indicators are allowed to be considered in unison with the current, it is more likely that the sectoral changes noted are indicative of China *approaching* – as opposed to already met – its LTP. To avoid repetition, this point will be developed further in the analysis.

## 5.2 Rural and Urban Wages

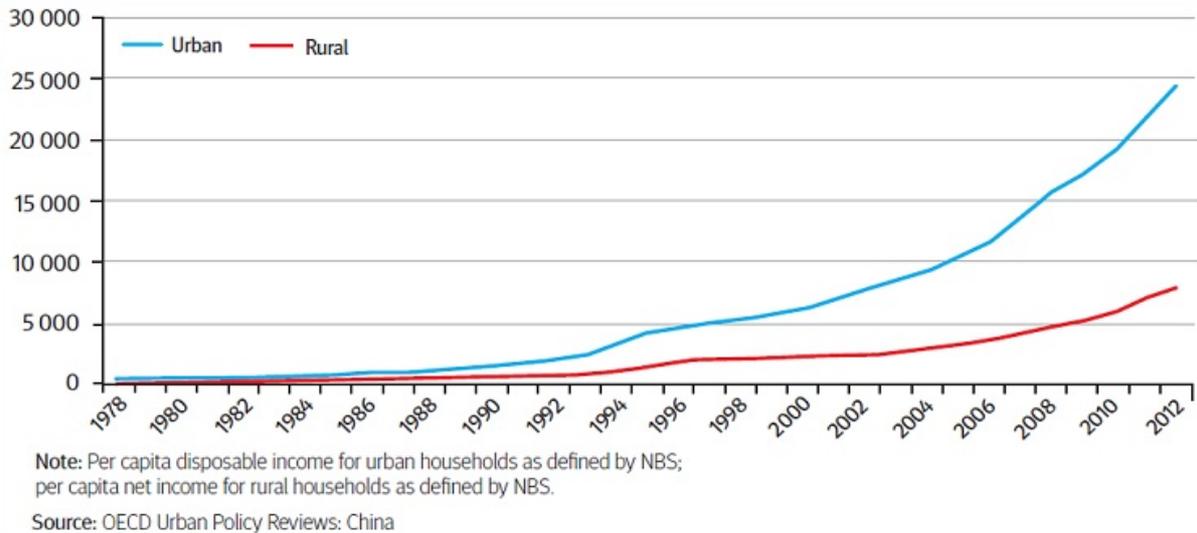
As outlined in *2.0 Theory*, before meeting the LTP of economic development, the marginal productivity of labour (MPL) in an economy's agricultural sector is, or is near, zero – where the transfer of labour to the capitalist sector has no implication on the wage rate in either sector; and where wages in the agricultural sector are at subsistence level and are higher than the marginal productivity of traditional labour ( $W^A > MPL^C$ ). At the same time, the institutional wage rate in the capitalist sector is about 30 per cent higher than the subsistence wage of the traditional sector. The wage floor in the capitalist sector incentivises the flow of labour from the traditional to capitalist sector, so that capitalist expansion utilises an infinitely elastic labour supply until it is depleted (Zhu, Cai 2012; Lewis 1954). When labour surplus is exhausted, agricultural labour will continue to pass to the capitalist sector because wages cease to be fixed, but are rather determined by productivity – where the higher MPL in the capitalist sector results in higher wages ( $W^C = MPL^C$ ), further promoting the transfer of labour. This drainage of

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<sup>17</sup> A short burst in the sectoral contribution of agriculture also occurred in the beginning of the 1990s, when economic growth was promoted by the easing of hukou restrictions – resulting in an increase in inter- and intra-provincial migration (Naughton 2007: 152).

agricultural labour causes the MPL to increase until it equals to that of the capitalist sector (Zhu, Cai 2012). Put simply, ‘the Lewis turning point can be referred to as the period during which expansion of labour demand exceeds that of labour supply and, as a result, the wage rate of ordinary workers starts to rise’ (Cai, Du 2011). Thus, one of the most pertinent indicators of an economy having reached its LTP is rising wages of both urban and rural unskilled workers.

**Fig. 6: Urban and Rural household income (CNY), 1978-2012**  
(Graph retrieved from OECD Observer (2016))



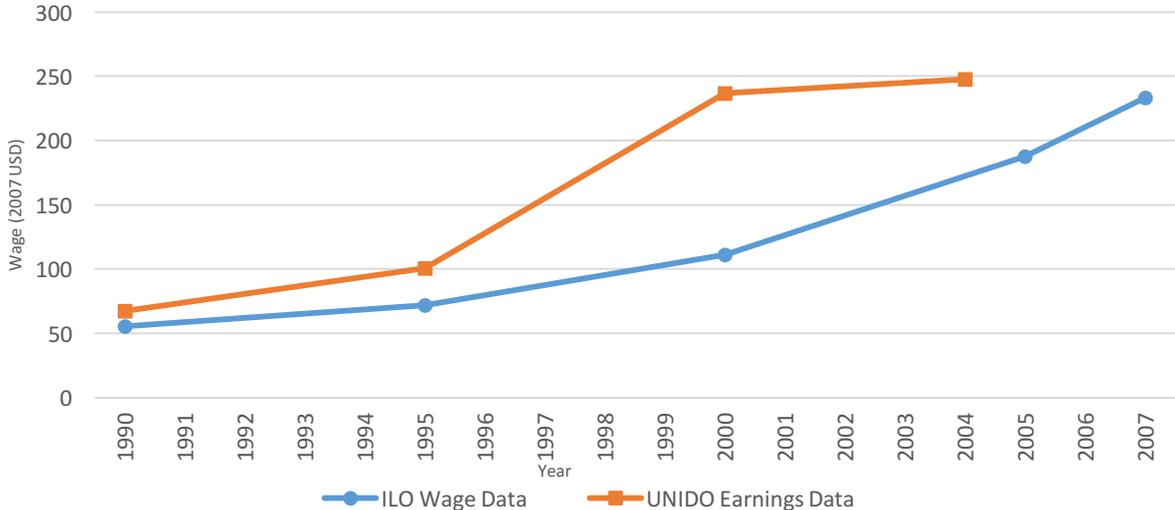
Thus, the analysis of labour shortages in China’s export-processing sector – and whether the phenomena can be explained by China having met its LTP – commences with a review of wage patterns in its dual economy. Fig.6 depicts a time series of rural and urban household income, where a definitive rise in both urban and rural household incomes from the 1990s following a period of little to no significant change. These trends are suggestive of the LTP; where the stagnation of total household income prior to the 1990s – even after the removal of the wage-freeze in the 1970s (Naughton 2007: 132) – denotes the expansion of the capitalist sector in the absence of wage implications, as per the early stages of Lewisian-style dual sector development. Slightly higher urban incomes, evidenced in fig.6 between 1978 and approximately 1990, are indicative of the capitalist-sector wage floor that is required to incentivise the movement of surplus labour from the traditional to modern sector. The subsequent rise of household incomes may thus suggest a diminishing labour reservoir resulting in an increased demand for unskilled labour in the modern sector – where the MPL of labour now determines wages in either sector. But while the elements of fig.6 may be indicative of a depleted surplus labour and an increased demand for such for it as early as 1990, the first widespread shortage of manufacturing labour did not appear until 2004. The inconsistency

between the indications presented in the graph and those exhibited in reality prompt further consideration.

Approaching the representativeness of urban-rural household income statistics with caution is not without reason. Indistinct boundaries between China’s urban and rural areas adversely affect remuneration data – where built up areas around large cities are still classified as *rural* in official statistics (OECD Observer 2016). Further, since the appearance of labour shortages in China’s export-processing sector is likely the reflection of a shortage of China’s internal migrant labour available to absorb that work – see 1.1 Background – more attention should be placed on migrant wages, which are not explicitly covered in by broader household incomes. A rise in migrant wages would be indicative of an increased labour demand for unskilled workers in urban sectors, possibly attributed to a depletion of the labour reservoir. Longitudinal data for migrant-specific income is, however, difficult to obtain; aggregate wage statistics in China tend to account for wages in what is considered ‘official’ employment – SOEs and other sizeable enterprises – and disregard wage data for the vast parts of the modern sector that migrants and other low-skilled workers are employed (Golley, Meng 2011). Thus, analysis of migrant wages will be redirected toward a review of manufacturing wages – by which migrants comprise the larger part of the workforce.

Fig. 7 depicts monthly manufacturing wages from 1990 to 2007 at constant 2007 USD. It utilises two independent sets of wage data – sourced from the International Labour Organization (ILO) and the United Nations Industrial Development Organisation (UNIDO) – which have been plotted on the same axes; where the different statistical sources are complimentary, helping to validate the general trend of the other. This is advantageous to the

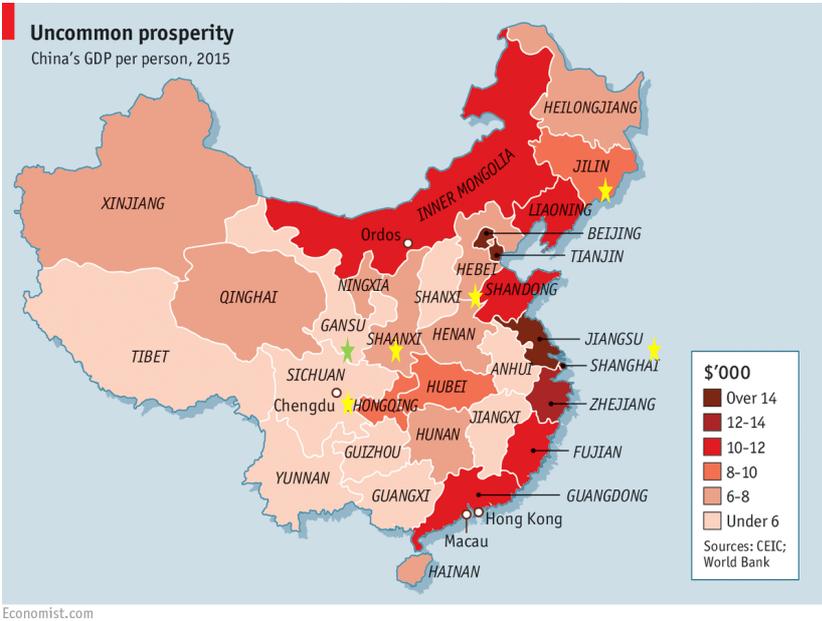
**Fig. 7: Monthly Wages in Manufacturing (2007 USD), 1990-2007**  
(Data sourced from Yang and Chen (2009))



analysis since average monthly wage data was not available on an annual basis, so that the available data is utilised to illuminate the overall wage trends. Indisputably, average monthly manufacturing wages rise between 1990 and 2007. The data-series of both statistical sources, albeit dissimilar, show a steeper incline in wages and earnings respectively after 1995. UNIDO earnings data are evidently higher<sup>18</sup> – though the missing data points between 1995 and 2000 may have caused an exaggeration of the trend’s incline – but the general trend of manufacturing remuneration, in either data-series, is upward. According to ILO wage data, between 1990 and 2007, manufacturing wages increased by approximately 321.5 per cent; earnings data, on the other hand, increased by about 268 per cent between 1990 and 2004. The consistency of the overall trend produced from each data-set adds to the validity of the findings. These, coherent with that of fig.6 despite the flaws of urban and rural wage data, suggest an early LTP for China. From a demand point of view then, as highlighted by Wang and Weaver (2013), based on observations of sustained increases in urban-sector unskilled wages China would appear to have reached it’s LTP.

In seeking further confirmation for such a declaration, one must also turn to more reliable data for rural wages. If the LTP has been reached, as indicated by rising urban wages, the underlying exhaustion of rural labour would result in an increase in the MPL in the

**Fig.8: Provincial GDP per capita**  
*(Image retrieved from The Economist (2016, Oct 1st))*



traditional sector and subsequently, of rural wages. Through village surveys conducted by the Centre for Chinese Agricultural Policy (CCAP), fig.9 offers a comprehensive and nationally representative account of daily rural incomes. The 5-province average, displayed for male and female survey participants separately, includes data sourced from an

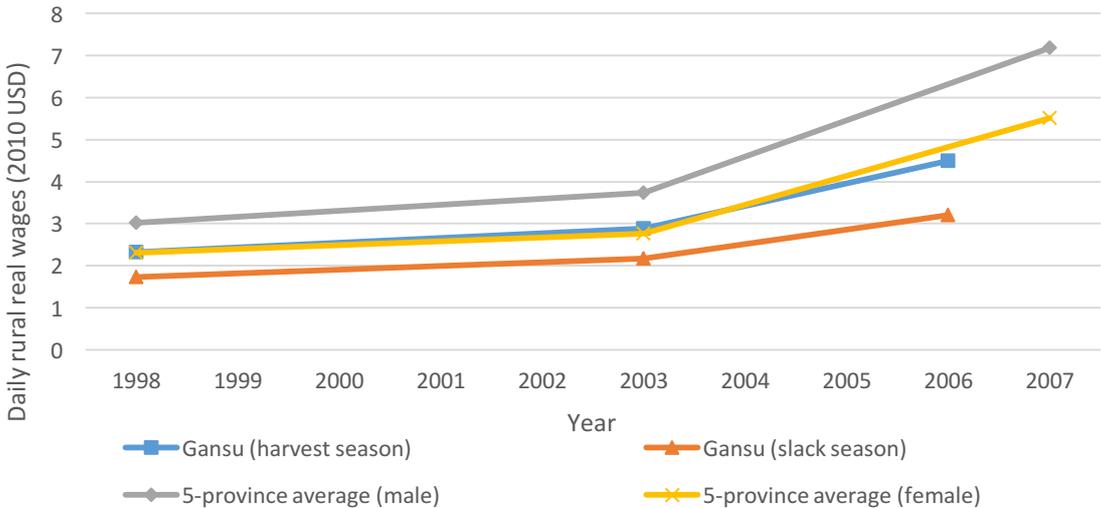
economically diverse group of provinces<sup>19</sup>: Hebei, Jilin, Jiangsu, Sichuan and Shaanxi (see fig.8,

<sup>18</sup> Earnings data refers to total remuneration paid to workers – including pensions, insurance payment and housing funds. Wage data excludes all other earnings than the compensation paid for labour (Yang, Chen 2009).  
<sup>19</sup> Made evident in fig.8, the provinces included in the survey make up some of the richest and poorest Chinese provinces. Geographically diverse too, the survey incorporated Eastern, Northern and Central inland provinces. The diversity of the sample group adds to the legitimacy

emphasised in yellow); two additional data-series illustrate the average provincial income of agricultural workers during harvest and slack season in China’s poorest province, Gansu (fig.8, emphasised in green). The incorporation of rural wage data collected in Gansu is significant. As one of China’s most disadvantaged provinces – with the highest levels of urban-rural inequality in 2008 (Yi *et al* 2011) – aggregate changes in the income of its more isolated, rural labourers would reflect broader transformations in the structure of China’s microeconomic conditions. In distinguishing between harvest and slack season wages in rural Gansu, these ideas further apply. Where statistical sources emit rural income data based on the remuneration generated in high season, the resulting data will overstate the living standards of the population. Reviewing the income of rural residents in slack season then, is of value to the analysis of whether China has met its LTP. Before doing as such, it is important to mention too that each of the four data-series show average real daily wages held at 2010 constant USD – accounting for the purchasing power of that remuneration.

While just three data points (1998, 2003, 2006/2007) make up each data-series, a definitive trend can be observed in fig.9. Prior to 2003, daily incomes of all sample groups – male and female 5-provinces averages, Gansu harvest and slack season – showed slight change with 23.5, 18.7, 24.6 and 25.4 percentage increases in wages between 1998 and 2003, respectively. In the following three (or four) years however, the percentage increase of daily rural wages is rapid. In the 5-province average samples, male wages increased by 92.5 per cent,

**Fig.9: Daily real wages (constant 2010 USD) in rural sector, various provinces (1998-2006)**  
 (Data sourced from Wiggins and Keats (2014))



of the data, and its subsequent trends, in that it is not concentrated in areas where, for example, the boundaries between rural and urban areas are blurred – as per fig.6

and female wages by 99.64. In China's poorest province, the growth was less impressive but noteworthy nonetheless: 55.7 per cent in harvest season and 47.92 in slack season between 2003 and 2006. The acceleration of rural wages after 2003 is indicative of a fundamental change in the undercurrents determining wage in China's labour market. The universal increase of wages after 2003 across all four samples – though varied in pace – offers further support for the meeting of a LTP in China. Since wage increases occurred in China's least advantaged, remote areas the possibility of spill-over effects from blurry urban-rural border or generally poor statistics is somewhat eliminated. This, particularly since Gansu wages accelerated even during slack season, where farmer incomes are generally under pressure, helps support the notion of a major structural change in China's labour market dynamics and resulting remuneration.

Fig.9 also depicts a slight incline in agricultural wages prior to 2003, as mentioned. While the Lewis dual-sector model postulates that the labour supply is perfectly elastic until the LTP has been met – at which point the supply ceases to be unlimited and wages begin to rise – the slower-paced wage growth observed before 2003 does not necessarily refute the model. Ranis (2004) contests the notion that institutionally-determined wages are rigid in traditional economies. In offering clarifications to the Lewis dual-sector model, Ranis (2004) elaborates that agricultural wages are *related to* rather than *equal to* the MPL in the agricultural sector. Thus, agricultural wages will be determined by *the sharing of income* in the agricultural sector – the average agricultural product of labour – where it is natural, even expected, that real wages will rise gradually over time. This phenomena, depicted between 1998 and 2003 in all four data-series of fig.9, is said by Ranis (2004) to occur '*as the bargaining solution takes into account rising levels of that average product*'. As a result, the wage level is never horizontal as most interpretations of the Lewis model suggest. Rather, it will rise – though never at rate of change in which the MPL is (Ranis 2004).

As may have been inferred, the rapid acceleration of rural wages evidenced in fig.9 after 2003 falls parallel to the first observations of widespread labour shortages in China's labour-intensive export-processing sector. The simultaneity of these changes are indicative of some sort of relationship – perhaps a simple supply and demand function – though not necessarily causal. The co-variance of rising wages and increasing labour shortages may reflect a spurious relationship, which would threaten the reliability of findings for an LTP in China having been met (Bryman 2012: 345). The possibility of other factors causing, or contributing to, the noted changes is something largely ignored by pro-LTP scholars to date (Cai, Du 2011; Zhu, Cai 2012; Cai, Wang 2009). In reviewing mechanisms that may attribute this theme, this account has narrowed in on China's unique political economy and institutional make-up. Fang and Lin's

(2013) analysis on minimum wage regulations offers a starting point for explaining China's wage trends.

Up until 1994, no minimum wage laws existed in China<sup>20</sup>. Momentum for wage legislation gathered with the explosion of private enterprises as a means for employment, in 1992. The labour disputes that resulted, and their growing frequency, prompted the central government to consider amendments to its Labour Law (Fang, Lin 2013). The new laws were finalised in July 1994; it required all employers of private enterprises to pay wages no less than the minimum wage set by the local government in which employees operate, and that the local government should establish its minimum wage based on five principles<sup>21</sup>. Concerns as to the slow growth of wages, as well as for generally disadvantaged or uncovered persons, saw minimum wage discussion resurface in the early 2000s (Fang, Lin 2013). New wage regulations would be implemented in January 2004, and covered workers in SOEs, private non- enterprise units, self-employed businesses, in addition to private enterprises. The new laws also established a monthly minimum wage for workers employed full-time, and hourly minimum wages for those employed part-time. While still varying between provinces and municipalities, the new minimum wages were set in a conjoint decision between the trade union, government and enterprise confederation of the local municipality or province (Fang, Lin 2013). The promulgation of the controversial<sup>22</sup> new minimum wage regulations in 2004 *'required local governments to introduce a minimum wage increase at least once every two years, extended coverage to self-employed and part-time workers, and quintupled the penalties for violation or noncompliance'* (Fang, Lin 2013). The new laws provide provinces and municipalities relative autonomy in deciding upon, and regulating, their minimum wage standards given the wide variation of conditions and living expenses across the nation (Fang, Lin 2013).

Fig.10 depicts average minimum monthly wages – both nominal and real – from 1995 to 2012 in China. In addition, the total number of provinces that raised their respective minimum wages for each year has been projected, where the moving average of which is highlighted in red. In focusing on the period between 1995 and 2003, nominal minimum wages show a steady, 78 per cent increase over the nine years. Real wages, on the other hand, rise

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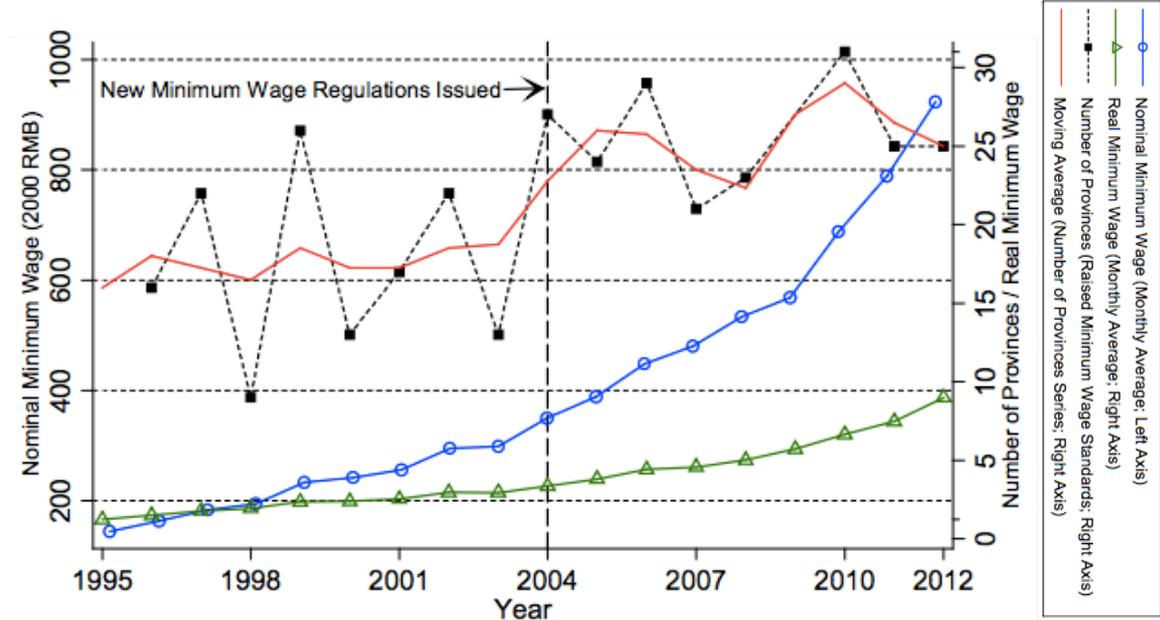
<sup>20</sup> Earlier regulations were implemented slight earlier - but were at the local level. After a period of slow wage growth and high inflation, the city of Zhuhai, of Guangdong, became the first introduce minimum wage regulations in the late 1980s. In 1989, the cities of Guangzhou, Shenzhen and Jiangmen would follow suit (Fang, Lin 2013).

<sup>21</sup> The synthetic setting of minimum wages in each municipality should respect the *'lowest living expenses of workers and the average number of dependents they support, local average wages, labour productivity, local employment, and levels of economic development across regions'* (Fang, Lin 2013).

<sup>22</sup> In the lead up to the decision, policy-makers and scholars alike were in disagreement upon minimum-wage and its possible effects. Proponents advocated minimum wage regulations would be instrumental in helping families achieve self-sufficiency and reducing inequality. In contrast, opponents argued that resulting higher wages would increase labour competition and reduce employment opportunities in the unskilled sector, and jeopardise China's comparative advantage in labour-intensive industries (Fang, Lin 2013).

much more slowly. Noticeable changes in either data-series occur after 2004. Though while nominal minimum wages increase rapidly, real minimum wages rise more steadily. Indicative of the successful implementation of the policy's requirement of local government to increase minimum wage at least every other year, the moving average rises after 2004 (Fang, Lin 2013).

**Fig. 10 Real and Nominal Wages in Respect to Minimum Wage Regulation Changes in 2004**  
 (Graph retrieved from Fang and Lin (2013))



Before proceeding, it is necessary to address some discrepancies; while fig.10 depicts *minimum* wage data, and not necessarily a specific sector or group of persons, it is fair to assume its trends are reflective of this studies' target group: rural and migrant workers. Minimum wage changes, as pointed to by Fang and Lin (2013), generally affect low-skilled, women, and migrant workers. Further, the data represented in fig.10 does not specifically include farmer wages. For some this may pose concern for its rural-wage representativeness; however, due to China's unique employment dynamic – see 5.3 *employment rates* – the general trends are symbolic of changing wage structures in China's rural communities, as already illustrated in fig.9.

The rise in both nominal and real wages following 2004 falls parallel to the first observation of labour shortages in China's coastal labour-intensive export-processing sectors, as has been reiterated. The acceleration of wage increases of the same time, again, have been used by LTP-scholars to assert the meeting of the turning point in China (Cai, Du 2011; Zhu, Cai, 2012). But in failing to account for the evolution of wage regulations and changing wage standards, the validity of LTP confirmations based on rising wages are jeopardised. Fig.10 calls

into question whether rising wage trends – noted in fig.6, 7 and 9 – are the result of the Chinese economy reaching its LTP. Considering the 2004 amendments to Labour Laws and wage regulations included all provinces, and economic sectors, even the more substantial indications of an LTP – as in for rising wages in the slack season of rural Gansu (fig. 9) – can be disputed. The rise of wage data then, could very well be attributed to either the evolution of China’s political economy or its meeting of the LTP. But if for one moment it is assumed that rising wages are indeed the result of policy changes – and therefore not due to a depleted surplus of rural labour – then the appearance of labour shortages in China’s coastal regions must be explained through means of another avenue. This, and because of the difficulty in identifying causality when analysing just one aspect of a very broad and complex subject, means a conclusion cannot be drawn without reviewing other indicators of the LTP.

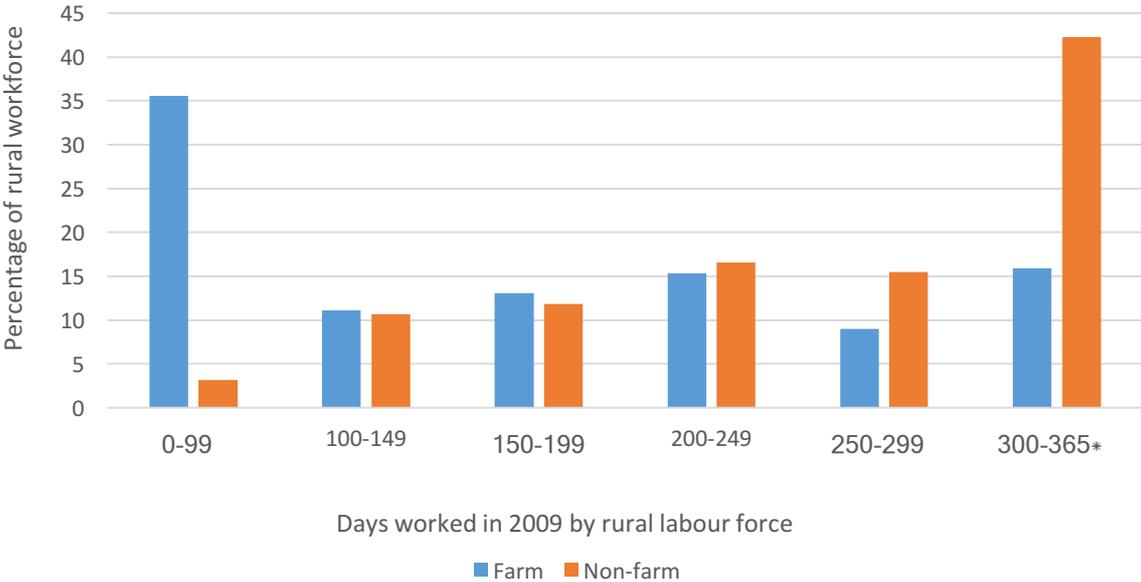
### **5.3 Employment Rates**

The investigation into explaining China’s labour shortages and, more pertinently, whether it has reached its LTP, requires a thorough analysis of China’s employment structure. For this indicator, it is necessary to determine whether workers are gainfully employed in both China’s agricultural and capitalist sectors. Since the Lewis model assumes the marginal productivity of workers in the capitalist sector to be above zero however – and therefore gainfully employed – it is the employment structure of the agricultural sector that is of interest (Ray 1998: 356). Where marginal productivity is less than the wage rate, and where wage is equal to the average marginal product (AMPL), the labour market is said to be characterised by disguised unemployment (Ray 1998: 360). Since rural surplus labour describes a phenomenon of population saturation, in the pre-LTP agricultural sector persons work less than their full capacity – and quite often, less than full time. The transfer of labour from the agricultural to the capitalist sector, and the subsequent depletion of that agricultural labour, prompts the increase in the agricultural MPL and ultimately the share of the population that is gainfully employed (Lewis 1954). Accordingly, post-LTP, one would expect to see a significant reduction in underemployment within the agricultural sector.

Fig.11 depicts the annual working days for agricultural workers in 2009 – some five years after wage levels began rising more rapidly and the first observation of widespread labour shortages. If the aforementioned factors evidence an LTP, the rate of underemployment in the agricultural sector five years after the fact should be rather minor. However, the data reflected in fig.11, which was collected under the RUMiCI survey program, does not comply. Important information can be drawn by analysing the average working days of non-migrating rural workers, sub-divided into farm and non-farm employment. Persons identified as ‘non-farm

workers’ – comprising 29 per cent of rural labour at the time of the survey – worked an average of 244 days in non-farm employment and 38 days in agriculture, equating to 282 annual working days. These rural citizens, of which over 40 per cent worked over 300 days can be considered full-time workers. This statement is based on provisions in China’s Labour Law 1995 that outline a ‘normal’ working week to be between 40 and 44 hours, Monday to Friday; to assume this to be universally true in labour markets across the country, the average annual

**Fig.11 Annual work days for (non-migrant) rural labour force in 2009, farm and non-farm employment**  
(Data sourced from Golley and Meng (2011))



working days of an individual is 260 days<sup>23</sup> (Ethical Trading Initiative, *unk.*). Those identifying as rural agricultural workers, on the other hand, worked an average of 154 days in farm jobs and just 3.4 days in rural off-farm jobs, equating to just over 157 days (Golley, Meng 2011). If, as is assumed, 260 days is the standard for Chinese full-time employment, over half of the agricultural labour force work part-time. Astoundingly, 35.6 per cent of the 71 per cent of agricultural workers employed in farm-related work, worked less than 99 days a year. That is to say, some five years after labour shortages first appeared in China’s labour-intensive export-processing sectors, underemployment was still very much abundant in China’s agricultural sector.

The implications of this data are unprecedented. If, in 2009, China’s capitalist sector was experiencing widespread and devastating incidences of labour shortages, then how is it that

<sup>23</sup> This is likely an understatement; though five days is the official regulation, it is likely the Chinese worker averages more work days. Some reports inform that migrant factory workers work between six and seven days a week (Knowles 2016; Hays 2008; China Labour Bulletin 2016). But in adopting an understated assumption of a 260 average annual working days, the findings are only more validated.

its agricultural sector was simultaneously suffering rabid underemployment? A study by Lam, Liu and Schipke (2015) on migrant labour market participation offers an answer to such a question; it found that the participation and employment rates of China's migrant population in 2009 were 95.9 and 94.3 per cent, respectively. High incidences of migrant participation – compared to the 69.5 and 62.9 per cent exhibited by urban hukou residents – suggests that there existed abundant employment opportunities for migrant workers in 2009 (Lam, Liu, Schipke 2015). Unique is the situation where underemployment is rampant in the rural sector, ample employment opportunity exist for migrants in the urban sector, yet widespread labour-shortages are noted in China's unskilled urban sectors. This phenomenon cannot be explained by the Lewis Model, which assumes the perfect elasticity of the agricultural labour supply to the capitalist sector, until it is depleted (Todaro, Smith 2015: 124-129). In the case of China, the apparent shortage of labour in the capitalist sector that is paradoxically coupled with disguised unemployment in the traditional, which can only be explained by the existence of barrier to this elasticity. Or more simply, a barrier to the free movement labour between Chinese labour markets.

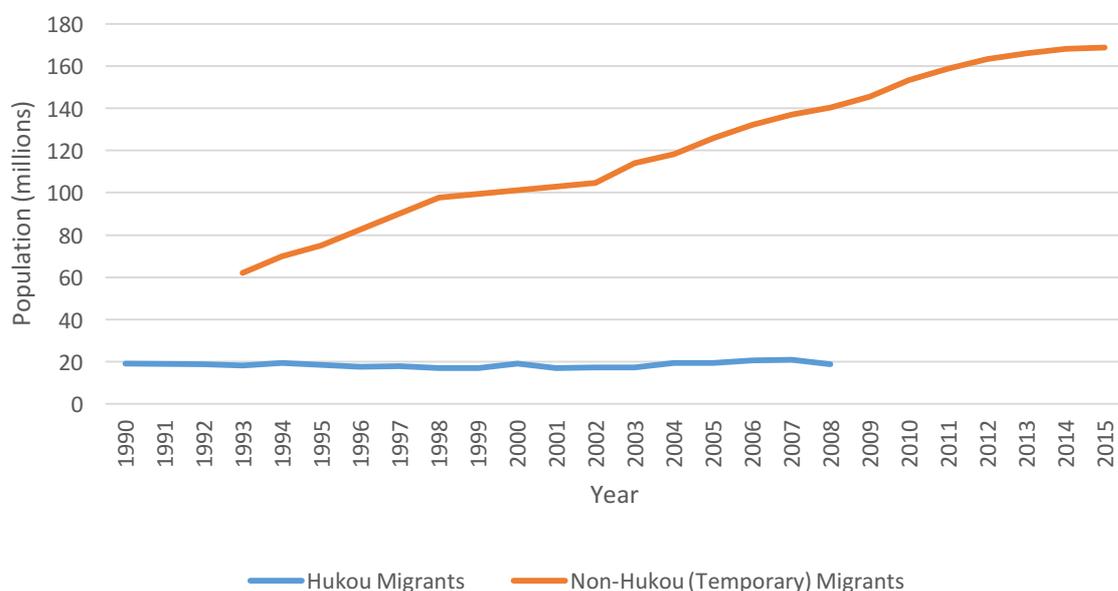
Such implies the labour allocation mechanisms governing the distribution of labour in China is not entirely market-based. To avoid repetition, the following section – *5.3 labour mobility and migrant data* – offers explanations for the aforementioned in its analysis of labour mobility patterns in China.

#### **5.4 Labour Mobility and Migrant Data**

At the centre of the Lewis dual-sector model is the assumption of an unlimited supply of labour in the agricultural sector – as has been well documented by now. To delve deeper into China's labour shortages, and whether it has met its LTP, will thus require a thorough review of its labour supply and the allocation mechanisms that control its distribution. The analysis of China's employment rates in the preceding section have already indicated that labour mobility is not governed by market forces. To support or refute such an indication, a review of the aggregate movement of labour between labour markets must first be undertaken.

Fig.12 depicts aggregate migration figures of hukou and non-hukou migrants in China between 1990 and 2009 collected by the Chinese Ministry of Public Security. There is an evident distinction between either trend-line. Hukou migration, on the one hand, is stable across the recorded period (1990 to 2008); fluctuating between 17 and 20 million annually, the rate of permanent migration, if population growth is factored, actually declined (Chan 2013). Hukou migrants – those that permanently relocate – thus make a very small portion of China's

**Fig.12: Aggregate migration figures, 1990-2015**  
(Data sourced from Chan (2013) and Statista (2017))



population; just 1.42 per cent of China’s total population in 2008. In stark contrast however, non-hukou migration has been increasing steadily since the first recorded data point in 1993<sup>24</sup>. With temporary aggregate migration recorded at 62 million in 1993, compared to 168.84 million in 2015, the overall growth amounts to 172.3 per cent. This mobility itself can be explained by Lewis’ dual-sector model; where the flow of migrants from the traditional sector to the modern is incentivised by a higher wage floor in the latter. But what cannot be explained by the model is the existence of labour shortages in export-processing sectors when the aggregate movement of labour shows no indication of slowing. The ‘temporary’ status of non-hukou migrants indicates that China had in excess of 160 million rural labourers travelling for employment, though unable to permanently relocate. Thus, from a supply-side perspective – based solely on the data depicted in fig.12 – an LTP in China cannot be supported; a floating population of such a quantity suggests instead that China is far from exhausting its surplus of rural labour. Thus, with no empirical evidence for a depleting surplus of agricultural labour, one must turn to the complex and intricate institutional framework that is the hukou system to explain the apparently increasing mobility of labour coupled with relatively low permanent relocation, and how the incentive structure that governs labour mobility is not merely confined to higher wages in the capitalist sector.

<sup>24</sup> Important to note: non-hukou data is missing for years 1996, 1997, 1999-2001. Therefore the projected trend-lines offer an approximation of the aggregate migration figures for these years.

### 5.4.1 Hukou reforms

China's incentive structure is largely formed by the institutional framework underpinning its labour markets – the rules and regulations generated by its household registration system, *hukou*. Therefore, before the incentive structure can be analysed as mechanism impeding in the marketization of labour allocation, it is necessary to briefly review the hukou reforms undertaken since 1978. As has been highlighted, China's market reforms have fundamentally transformed the dynamics of both the urban and rural sector. Reforms saw collectivism recede, and the abolition of permanent employment for urban residents and the diminishing importance of the urban *danwei* (Naughton 2007: 122). But perhaps the most notable change has been the easing of restrictions governing labour mobility. In the early reform years, authorities amended policy to increase the internal mobility of rural residents, which had been near non-existent pre-1978. The introduction of a temporary residence system provided legal channels for rural citizens to travel to small cities or towns for unskilled work (Rubio, Smith 2005). Regulations were eased further in 1984 when the government introduced a '*self-supplied food grain*' hukou which permitted rural citizens to obtain permanent residency in 'market towns', conditional on proof of local employment, housing and the ability to provide their own food rations. Increasing liberalisation of labour mobility was encouraged by government officials, who advocated for the rich and highly educated; the 'blue stamp' hukou, introduced in 1992, allowed wealthy citizens to 'purchase' an urban hukou through means of large monetary investments in urban areas in that urban hukou (Rubio, Smith 2005; Wu 2013). The blue stamp hukou also provisioned the possibility of a transferal to a formal hukou for property buyers and investors after three years, and employees of public firms after five<sup>25</sup> (Wu 2013). Later, following an experimentation program instigated in 1997 allowing rural migrants to conditionally<sup>26</sup> obtain a local hukou in some small towns and cities; the State Council expanded this program in 2001, permitting approved migrants to relocate and receive social security equal with other local hukou residents in all small cities and towns (Rubio, Smith 2005). In the new millennium, further attempts at relaxing the system have been in progress, and many reforms have focused on addressing discrimination and abuse faced by migrants in urban workplaces. The new era of labour mobility has also bared witness to growing numbers of Chinese rural residents migrating without formal documentation; '*gradual abandonment of*

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<sup>25</sup> The blue stamp hukou has been heavily criticised, not least for its discriminatory selection process but also by blue stamp holders; many have argued that despite bearing the blue stamp hukou, they could not access the same array of social benefits as enjoyed by local residents. The approach was abandoned in Shanghai and Guangzhou in 2002 and 2003 respectively (Wu 2013).

<sup>26</sup> In order to transfer their hukou status, migrants had to provide evidence of a stable source of income and resident for a duration of more than two years (Rubio, Smith 2005).

*rationing increased the ability of unregistered migrants to purchase food in urban markets, facilitating unregistered migration. According to one estimate, only about half of the 80 million migrants (as of 1995) were formally registered as temporary residents'* (Rubio, Smith 2005).

Since the mid-1990s however, the role of the central government in hukou reforms has been declining, increasingly issuing guidelines for change over outright regulations (Wu 2013). While it still has centralised power over the appointment of governmental personnel, much of the responsibility of developing and administering hukou-policy, specifically in regard to migrant integration, has been decentralized to local-level authorities. This means that local governments have the capacity to adjust the regulations and frameworks set by the central government (Wu 2017). In all, the reform process has been slow and sporadic, and amendments to the system have often *'been followed by central directives to slow down the pace of change'* (Rubio, Smith 2005). With high interests at stake, many of the barriers to effective resource allocation still prevail in contemporary China – especially regarding migration to large cities such as Beijing and Shanghai (Melander, Pelikanova 2013). Nevertheless, as will be made evident, fundamental changes have been few. The evolution of change in China's hukou system has reaffirmed, rather than dismantled, the rural-urban divide so dominant in China (Wu 2013). A legacy of the tightly-constrained hukou system wholeheartedly exists, namely exhibiting itself in the system of property rights and social security.

#### **5.4.2 Property Rights**

The existence of hukou as an institutional backbone of Chinese society – despite its reforms – continues to have adverse effects on China's economic incentive structure and subsequently on rural residents' propensity to migrate. This is evidenced first in the system of property rights governing the agricultural sector. With the end of collectivism during the 1978 to 1984 agricultural reforms, family farms returned as the dominant agricultural system (Naughton 2007: 120). The transition was facilitated by dividing each collective between its members; a division administered on carefully negotiated formulas based on household size, at the collective level. But despite being called the *'most egalitarian land reform in history'* (Naughton 2007:120), the division was not so simple as creating a private property system. That is, despite reallocated land being occupied and harvested by the household it was assigned, formal ownership of that tenure still belongs with the collective (Naughton 2007: 120):

*'Article 10 of the Chinese Constitution says that rural land is collectively owned except for that owned by the state. This stipulation is confirmed by Article 8 of the Land Administration Law ("LAL") and Article 59 of the Chinese Property Law. Both statutes designate the villagers' committee, the villagers' group, or*

*corresponding collective economic organizations as the body empowered to exercise collective ownership and manage the collectively owned land.'*

– Qiao, Upham 2015

To further understand the system of property rights underpinning the rural sector<sup>27</sup> one must point to Article 10 of the Chinese Constitution. Land administration, as per the current political regime, is centred around preserving agricultural land. This means that rural land can be used strictly for agricultural and agricultural-supporting purposes – such as building public facilities, residential accommodation and TVEs (Qiao, Upham 2015). The article's provisions serve to constrain the purchasing power, free-choice and opportunity of rural residents in a number of ways. As opposed to outright ownership, the land is contracted to the household where, as signatories, they hold land use-rights for periods unbeknownst to the household, though documentation indicates land-use rights often extend up to 50 years. After the collective has contracted the land, it has few intervention rights on agricultural production (Naughton 2007: 120; Qiao, Upham 2015). But the collectively-owned system carries with it a number of restrictions that impede in the marketization of labour allocation in China<sup>28</sup>. First and foremost, while collectives cannot interfere in household-farmer decisions, they are able to – and do – redistribute land; redistribution is undertaken to accommodate natural population growth and prevent landlessness. According to a large-scale study conducted by Rozelle and Li (1998), in 66 per cent of all surveyed villages, land had been redistributed at least once since the reform, and in 25 per cent redistribution had occurred more than three times. As a result, neither the income or land-use rights of rural agricultural households are secure, negatively affecting the reward for investing in agricultural land<sup>29</sup> (Rozelle, Li 1998; Naughton 2007; 120).

But it is another element of the agricultural sector's characteristic insecure property rights that is more pertinent to this piece – the cost of permanent migration. Households opting to permanently migrate from their local hukou generally have to renounce their land-rights to the collective. In doing so, migrant families not only risk losing their physical home, but also a stable – albeit low – income (Naughton 2007: 120). The large potential costs of such a move weighed against small potential gains – *see 5.3.2 Social Security System* – mean that very few families permanently migrate. Instead, the system supports temporary-migration for some, not

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<sup>27</sup> Rural property rights are distinct from those governing urban areas – while rural land is collectively-owned, urban land remains state-owned.

<sup>28</sup> The implications of this system of rural land distribution are, in some instances, positive. The reform has been referred to as '*the most egalitarian land reform in history*' (Naughton 2007:120), providing nearly all rural farmers with access to land. With little landlessness, absolute poverty can be circumvented. This is evidenced by China's impressive 94 per cent reduction in rural poverty between said reform and 2015 (Naughton 2007: 120; Wu 2016).

<sup>29</sup> The incentive to invest in the farm's long-term productivity is hampered by the possibility of it being redistributed. Further, since it is not owned by the farmer, land cannot be used as collateral for acquiring loans (Naughton 2007: 120).

all, family members (Naughton 2007: 120). Where one or more members of the household migrate temporarily – most often to cities – land-use rights are secured in the home hukou, all while collecting higher wages in the city migrated to. The skewed incentive structure then, in addition to political barriers, explains comparatively low hukou-migration depicted in fig.12. Despite a steady increase in aggregate migrant numbers – evident in fig.12 – since the early 1990s, hukou migration remained stable. This stability reflects forces of government and policy intervention over any form of marketization. Mechanisms that limit incentives to migrate, in addition to outright quota control<sup>30</sup>, means that only a select group of rural residents permanently migrate (Chan 2013). The system thus renders itself to favouring the rich or highly educated – persons that on the one hand can afford potential opportunity-costs of loss of land-use rights, and on the other hand, are more likely to be approved by public security authorities (Chan 2013). This also helps explain the steady increase of non-hukou, or temporary, migrants depicted in fig.12. The search of long-run economic returns for migrant families – weighed against the aforementioned barriers to migration – means that it is in the best interest of the family to send one or few family members to urban areas for periods of a time (Naughton 2007: 199-200). The growth in temporary migration can thus be explained as a combination of two factors; prevailing inter-provincial economic disparities and an easing of restrictions governing temporary migration discussed in the preceding section (Naughton 2007; 199-200).

### **5.4.3 Social Security System**

Agricultural property rights are not the sole explanatory factor attributing China's large labour surplus depicted in fig.12 and the existence of a labour shortage that cannot be explained by Lewisian theory. The incentive to migrate is too hampered by the social security system that governs the distribution of social benefits across the country. Put simply, welfare entitlements are administered disproportionately in China, since distribution is based on – and in – the resident's hukou. Migrant workers therefore have limited access to social welfare and other related services outside their home hukou – where the absence of a social support network discourages migrants from permanently relocating to cities (Lam, Liu, Schipe 2015).

To explain this testament, one must refer to the differential paths of change of rural and urban sectors and the decentralization of decision-making to local governments that has meant the system is far from egalitarian (Naughton 2007: 122-123; Wu 2013). While China has made significant economic progress since initiating its market reforms, the development of its social

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<sup>30</sup> 'Crossing city, town and township boundaries are strictly regulated and require approval by the public security authorities. The approval is granted scarcely and only when there are good reasons for the proposed move, and if the move serves (or at least is not at odds with) the central or local state interests and policies' (Chan 2013).

spheres – namely its social welfare system – has been less impressive (Shi 2013). Since 1978, China has witnessed fundamental transformations of its pre-reform systems; but the dynamics of such changes have varied greatly between urban and rural areas. Beginning in the rural sector, the reversal of collectivisation in rural areas saw the collapse of public good provisions to rural populations previously administered by the collective (Naughton 2007: 122-123). Inured to the self-sufficiency of collectives, the central government did not assume the role of distributing those services. Contrarily, reforms in the urban system – not as loosely-formed as rural networks – did not result in as quick or drastic change. As discussed in *1.0 Introduction*, social services in pre-reform urban areas were not only guaranteed by the state but also distributed by the work unit. The deep-seated entitlement structure that emerged compelled the central government to guarantee the urban social contract upon its reformation, at least in part. Enterprise reforms advocated for the removal of social welfare provision by SOEs, though these demands were not met by urban *danwei* until the functions of which were replaced by a social program (Naughton 2007: 122-123). Accordingly, while not complete in its functions, the central government still provides social services to urban residents – including direct financial support for social security and healthcare as well as via its social insurance network. The outcome of differential paths of change in urban and rural welfare systems is most clearly exhibited in the health arena. Rural residents, whom are generally more economically disadvantaged, pay regular premium for health insurance and larger outright sums for health and medical services, while urban residents pay little (Naughton 2007: 122-123).

The central government has however made attempts at improving the social welfare system to a level more egalitarian and inclusive. The introduction of the financial assistance system, *Dibao*, for low-income households offers an example of such efforts. Ensuing from rising unemployment in the aftermath of SOE reformation, *dibao* would offer minimum living assurance (MLA) to a growing population of low-income earners. Implemented in economically-advanced cities in 1993, the system expanded to all urban hukous by the late 1990s (Zhang, Ci, Zhan 2016). Rural residents were largely excluded from the system until 2007. But even with the universal enactment of the MLA program in China, inherent divisions in social welfare distribution have meant the failure of the system's equity. In a study conducted by Zhang, Ci and Zhan (2016), which reviewed the living conditions and financial expenditures of households receiving MLA, urban and urban-fringe households were found to receive an average of 8000 yuan a month, compared to 3000 by rural households. While rural household have lower living costs, MLA accounted for just 33 per cent of rural financial outgoings, which lay in stark contrast to the near 50 per cent MLA accounted for in urban areas. Further, rural

households were found to pay a larger proportion of their expenditure on medical and health costs at 30 per cent, compared to 20 by urban households<sup>31</sup> (Zhang, Ci, Zhan 2016). By running a series of statistical regressions, Zhang, Ci and Zhan (2016) were able to attribute the urban-rural divide as the single most important factor to the prominent differences in MLA provided to households within either region. While public assistance between urban and rural households is not necessarily a central point to this piece, it does give insight into the results of the differential paths of change in the social welfare arena since 1978 – of which is imperative to understanding the skewing of China’s incentive structure.

Most pertinent to this piece is the effect of these differential paths of change have had on the deliverance of social welfare to China’s migrant population – that is, on China’s incentive structure. As touched on in *5.4.1 Hukou Reforms*, the decentralisation of hukou-related decision making has seen the provision of social services across China localised and, accordingly, varying from region to region. Local governments, who cover some 90 per cent of total expenditure for social safety nets, including housing, education, health and medical care and general community affairs, have effectively become responsible for public resource distribution in China –which is administered concurring to resident’s hukou status (Wu 2013). For this reason, the system generates an environment where local governments are ill-incentivised to comply with guidelines set by the central government. In effect, the larger the *hukou* population in a given locality, the greater the financial burden of the administration to deliver the range of social security services to that population. As a result, many local governments opt not to recognise temporary migrants as part of the local population, permitting for their legal exclusion from social service provision within host cities (Wu 2013). On this premise, host governments maintain that local governments of migrants’ origin should bear the responsibility and associated costs of provisioning social welfare services to out-migrants. This phenomenon is worsened still by sending governments’ continued failure to meet the needs of their out-migrants. This failure persist for two main reasons: first, in respect to geography, social services are administered within the locality, meaning the absence of the migrant in his or her origin hukou renders him or her incapable of receiving such services while stationed in a host area<sup>32</sup>. Second, the origin government does not subsidise social security services received or administered in the host locality (Wu 2013). Opposition to administering, and bearing the costs

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<sup>31</sup> Zhang, Ci and Zhan (2016) also found the prevalence of households with at least one clinically ill member to be far greater in rural areas at almost half of households, and a further one-fifth with a member seriously ill. This means more rural households had to bear the costs of medical and healthcare, where its higher costs meant households had to prioritise medical costs above other basic needs.

<sup>32</sup> Despite guidelines administered by the central government that host governments should bear the costs of education for migrant children for example, these standards have rarely been met (Wu 2013).

of, social-welfare services by host governments exhibits itself in discriminatory behaviour, the controversies of which are reflected in the proposal of unconventional solutions by local host-governments. The proposal of ‘school vouchers’ for the compulsory education of migrant children by the Mayor of Dongguan in 2006<sup>33</sup> offers an example of such. The existence of bureaucratic barriers, despite public schools being theoretically available, mean that many migrant children do not attend school (Wu 2013).

As pointed to by Wu (2013), *‘the underlying logic is that hukou status is much more important than de facto employment and residency in determining the distribution of public resources’*. Discriminatory practices came to international light in 2005 when the central administration’s Vice Minister of Health, Wang Longde, publicly condemned the healthcare policies of local governments, which had excluded unregistered and temporary migrants from receiving HIV/AIDS prevention, testing and medical services – indicative of migrant workers higher susceptibility to the contraction of infection diseases (Rubio, Smith 2006). What this highlights is that while social welfare services in rural areas are inefficient in comparison to its urban counterparts, rural out-migration *further* deprives migrants of existing services. The result of a system failing to recognise the social needs of migrants is a vast a floating population falling between the gaps of a cracked social security network.

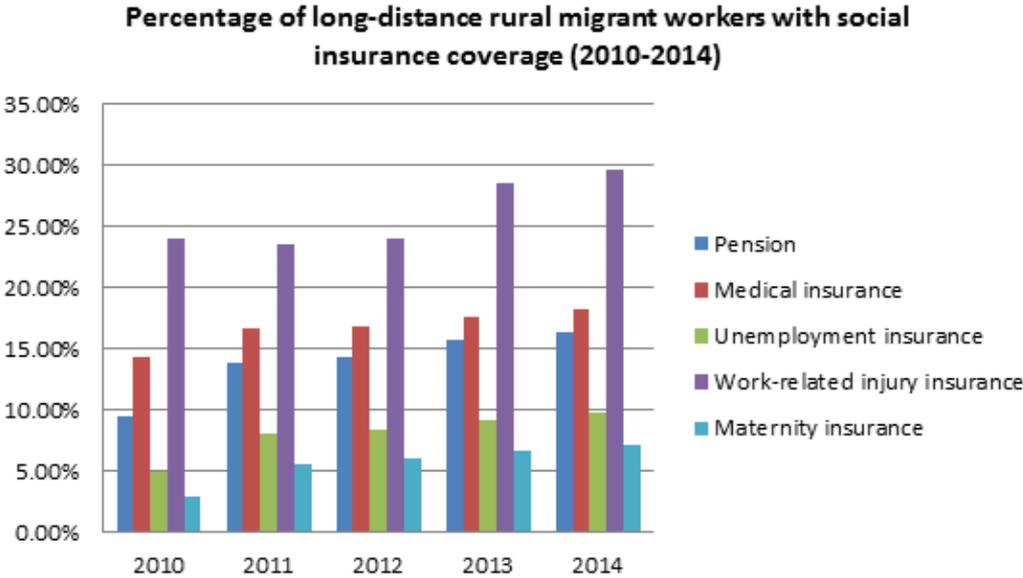
As has been explained, advancements in welfare distribution have been uneven across the country, making for a particularly skewed social security network in China (Naughton 2007: 202). Fig.13 is illustrative of, despite its reforms, the hukou system’s pervasive effect on migrants’ ability to access China’s social security system. The graph points to the limits placed on migrants’ – those unregistered and holding a temporary residency permit – ability to acquire social security services, including healthcare (Rubio, Smith 2005). What is evident is that ten years after the point in which labour shortages were first observed, the majority of migrants were still denied access to the breadth of social security services received by their urban counterparts. Injury insurance, the social security service most widely received by migrants, still only reached under 30 per cent of migrants by 2014; where its comparatively high levels of coverage can be attributed to the employer’s incentive to pay for work-related injury same sectors where migrants are more likely to be employed (China Labour Bulletin 2016a; China Labour Bulletin 2016b). Striking are the alarmingly low levels of migrant coverage across the

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<sup>33</sup> He argued that since migrant children should have received education in their locality of origin, that local government should afford the cost of education if migrant children were accepted into schools in the host city – where the budget would be transferred between the local governments via ‘school vouchers’ (Wu 2013).

remaining social services. Only by 2011 did migrants covered by medical insurance surpass 15 per cent, and pensions by 2013. Worse still, less than 10 per cent of migrants held injury insurance in hazardous sectors – where injury is more likely and the potential costs greater – or unemployment insurance as late as 2014 (China Labour Bulletin 2016a). Since the figures reflected in fig.13 depict social welfare conditions between six and ten years after the fact, it is

**Fig.10: Accessibility to welfare benefits by migrants, 2010-2014**  
(China Labour Bulletin (2016a))



not unmerited to assume the accessibility of migrants to all the aforementioned social security services have been less in the lead up to 2004. This is an important observation. Fig.13 already bears witness to disproportionately low levels of social welfare coverage for migrant workers, but in acknowledging coverage have less in 2004 – if growth trends witnessed in fig.13 are any indication – then the incentives to migrate were more skewed when labour shortages first appeared in China’s coastal areas.

Fig.13 highlights what has already been pointed to throughout this section; that only a relatively small group of migrants are eligible for the same welfare and social benefits that are enjoyed by local residents (Chan 2013; Lam, Li, Shipke 2016). The irregularity in coverage across the social services also suggests that while some migrants may have access to injury insurance, for example, this does not necessarily equate to having access to the remainder of the social network. For a number of reasons, the social security system creates disincentives for rural migrants to migrate, particularly on a permanent basis. In addition to low medical coverage and the associated economic risk of high out-of-pocket costs in case of illness, tremendously low access to maternal insurance for migrant women discourages women and

*whole* families from migrating; where women are not economically supported by the social network after giving birth, the household is temporarily bound to meeting its basic needs on a single income. The provision of pensions by employers or the state – or lack thereof – marks another important disincentive migration. The reformation of social security network and urban work units had passed the onus of responsibility largely from the central government to employers in urban areas. Thus, while Social Insurance Law ascertains pensions for all citizens, lax control over its implementation mean employers oft bypass these provisions (China Labour Bulletin 2016b). As recently as 2014, in a testament to the failure of distribution mechanisms underpinning the social security system, forty-thousand workers at the Yue Yuen shoe factory in Dongguan participated in a two-week strike – sparked by the discovery the company had underpaid social insurance schemes for years (China Labour Bulletin 2016b). This robbed employees of the entirety of the pension they were entitled. As suggested by fig.13, the neglect of employers and the state to provide social security services to migrants is not limited to the Yue Yuen shoe factory, but rather it reflects the conditions met by migrants in many labour-intensive firms. Where pensions are underpaid or unpaid entirely, migrant workers cannot afford to retire.

Already pointed in 5.4.2 *Property Rights*, the result of China's household registration system is a plain division between the economy's agricultural and capitalist sectors. When viewed in light of property rights and social welfare, it is clear that already-existing political barriers to migration are amplified by poor incentives for rural residents to migrate permanently. The temporary migration that results attributes large cohorts of labour moving cyclically between capitalist and agricultural labour markets, to this day. At the time in which acute labour shortages appeared in the Yangtze and Pearl River Deltas, the average migration period was just 5.3 years, and by 2009 less than 20 per cent of migrants had been employed outside their local hukou for over ten years (Wu 2013). While migration periods are growing – between seven and nine years in 2015 – still only 20 per cent migrated as a family-unit (Gu 2015). A will to migrate – as evidenced in fig.12 – supports the existence of a Lewisian wage floor in the capitalist sector. However, the aforementioned institutional and political barriers obscure the ability of migrants to obtain them – at least for prolonged periods. In effect then, the assumed elasticity of labour mobility in the Lewis dual-sector model does not pertain to the Chinese context. Labour does not flow in a singular direction, highlighting a misalignment in Lewisian theory and labour dynamics specific to China. Chinese labour shortages, when viewed from the perspective of labour mobility at least, cannot then be explained by having met its LTP. Instead, a skewed incentive structure created by a discriminatory institutional framework, means that in

addition to blatant political barriers, the propensity of labour to permanently relocate for occupations with larger marginal productivity – and subsequent wages – is lower than it would otherwise be.

To summarise succinctly, incomplete market reforms attribute an absence of equity and privatisation in China's social welfare and property right systems, respectively; both of which, in conjunction, create disincentives for permanent migration of the whole family, resulting in temporary migration by members of the rural household. The resulting cyclical movement of labour suggests thus a gap between unskilled-sector job vacancies and the available of persons for long-term employment. Such would imply that while fig.12 indicates the existence of a large labour surplus, temporary employment in cities is not enough to meet urban labour demands – particularly in labour-intensive industries such as manufacturing – creating labour markets where labour surpluses and shortages can co-exist.

Microeconomic data has steered explanations of labour shortages in China's coastal export-processing sectors away from Lewisian theorising. The absence of market-based allocation mechanisms rendered by political and institutional underpinnings in China's contemporary labour markets likely attribute persistent labour shortages, at least when viewed from the labour-supply side.

## **6.0 Summarising Discussion and Concluding remarks**

In 2004, acute labour shortages were reported in China's coastal export-processing sectors. Coinciding with rising real wages in China's urban sectors, the phenomenon sparked scholarly debate as to whether China had met its Lewis Turning Point of economic development (Cai, Wang 2009; Golley, Meng 2011; Liu 2015; Litao Yanjie 2010; Cai, Du 2011; Zhu, Cai 2012). More than ten years after the fact, labour shortages continue to prove highly contentious. Since the initiation of market reforms, China has undergone remarkable transformations and its labour markets function relatively well; China has bore witness to the fastest, sustained economic growth in recorded history. However, marketization processes are incomplete; even today, legal barriers to labour mobility exist. A country of many contradictions, it is no surprise that consensus has not yet been reached as to whether labour shortages in China attribute it having met its LTP, or if other factors – institutional, political, discriminatory or otherwise – are at play. This dissertation has taken its point of departure from this debate, aiming to review the root causes of labour shortages in China by context-testing Lewisian theory.

As explained, distinct features of the Chinese economy make LTP testing particularly difficult and equally controversial. Nevertheless, this piece has thoroughly reviewed relevant

LTP indicators, using data available, to draw a grounded conclusion that China has not yet met its LTP. In doing so, it finds that labour shortages and rising wages arose as side-effects of China's unique political economy and institutional underpinnings. These conclusions, which support the hypothesis presented in the beginning of this piece, are founded in the amalgamation of a series of indicators.

Since the initiation of market reforms in 1978, structural transformation in China has been significant, widespread and undeniable – offering robust indication of the approaching of China's economy to a LTP. Urbanisation has been steady since hukou-enforcement was relaxed – the share of China's urban population grew from just 17.9 to 55.6 per cent between 1978 and 2014. Sectoral share in GDP has too made impressive strides – industry has maintained its share of GDP consistently above 40 percent, even after the industry ceased to be supported by high-price policy and government subsidisation. At the same time, the relative importance of agriculture declined almost continually after 1982. These processes indicate the transfer of labour from the subsistence to the capitalist sector has promoted the expansion of industry through increases in labour resources in a sector in which the MPL is above zero, or gainful. When viewed absent of other indicators, each of these may suggest an LTP or the approach of it in China – much like conclusions drawn by Cai and Wang (2009). Their investigation into economic expansion, structural change and employment opportunities in China asserted these marketization processes since 1978 have allowed a market-based labour allocation mechanism to develop. Cai and Wang (2009) claim this development has promoted significant expansions of the industrial sector, which has absorbed the rural surplus labour in its entirety. By stating that there exists no evidence of a labour surplus in China, this dissertation strongly contends their conclusions. Considering that the urban share of population is still just 55.6 per cent with trends showing no indication of levelling off, and mobility data indicates a floating population of upward of 180 million persons, the structural transformation processes are certainly underway but far from complete. Structural changes then, suggest China is following a Lewisian growth trajectory, though there is little indication that it has passed the turning point of that trajectory.

Further, it is somewhat understandable that demand-side LTP-researchers have cited rising wages as evidence of an early or approaching LTP in China (Cai, Wng 2009; Liu 2015). Liu (2015), for example, corroborates his findings on the MPL and subsistence wage to support a LTP in China between 2002 and 2004, by pointing to rising wages since the same time period. Wage data collected for this piece also revealed wages have been steadily rising in urban and rural areas, though of from the mid-1990s and early 2000s respectively. However, when viewed

in respect to minimum wage laws, as has this dissertation, it becomes evident that provincial minimum wage standards and federal provisions to regularly increase those standards may attribute to rapid increases in recorded wages – especially after 2004 – as opposed to a LTP. Where scholars such as Liu (2015) cite rising wages since 2004 as evidence of an LTP, this piece highlights that the introduction of new, more stringent minimal wage laws in 2004 may mean wage increases have not been driven by market-based mechanisms. Considering that institutionally-determined wages are not necessarily rigid in traditional economies, as highlighted by Ranis (2004), further doubt is provoked.

Supply-side indicators on the other hand, like that of employment rates in China's rural sector, give a more blatant answer. While non-agricultural rural workers averaged full-time employment in 2009, these labourers made up just 29 per cent of the rural labour force. The remaining 71 per cent, agricultural workers, were by and large underemployed, averaging annual working days of just 157.4 days. Over 35 per cent of these worked less than 99 days a year. High rates of underemployment in the agricultural sector also coincide with the findings of Golley and Meng (2011), who assert there still exists a large pool of surplus labour in China's subsistence sector; they too argue that institutional barriers prevent the efficient and gainful utilisation of rural surplus labour in urban sectors. This dissertation further corroborates their findings by pointing to high incidences of labour market participation by migrant workers compared to their urban counterparts – between 94.3-95.9 per cent and 62.9-69.9 per cent respectively. High participation rates in urban labour markets paired with underemployment in the rural labour markets, indicates that the existence of labour shortages cannot be explained by a lack of labour available – or willing – to absorb those employment opportunities. Instead, where the Lewis model assumes the perfect elasticity of labour from the rural to urban sector as an economy develops, employment trends in China counter this assumption by suggesting there exists a barrier to that mobility.

The analyses of employment rates indicated the presence of barriers to labour mobility, and the evaluation of labour mobility as a separate indicator supports this sentiment. Where pro-LTP scholars such as Cai and Wang (2009) have asserted factors such as the hukou system and welfare policies no longer act as barriers to labour mobility, this dissertation finds quite the opposite. It maintains that the legacy of Mao's centrally planned economy underpins China's contemporary economy – despite significant advancements in post-reform marketization. While the stringency of hukou governance has certainly eased since Maoist rule, its reformation has evolved as such to reaffirm a longstanding urban-rural divide in China. Despite the dismantling of collectivization in rural China, formal ownership of rural land still belongs with

the collective. While the tenant has land-use and living rights to contracted land, the system constrains the free-choice and opportunity of rural residents in a number of ways. Most pertinent of these is the very real risk of having to relinquish land-use rights when a rural household opts to permanently relocate. This poses a threat not only to the rural household's home and tenure, but also to its income. The system thus affects the rural resident's propensity to migrate by creating disincentives for permanent migration to the capitalist sector. Rather, it supports temporary migration by few members of the household, making migration in China cyclical rather than elastic. Though taking a different focus – specifically on education attainment among migrants and their new tendency to stay within their local hukou – investigations by Litao and Yanjie (2010) also suggest the existence of a skewed incentive structure in China. Already discriminatory, the current structure is further skewed by the decentralisation of hukou decision-making to the local level. Many local governments, bearing the burden of social welfare costs, fail to recognise migrants as part of local populations. Where governments fail to bear the onus of responsibility for migrant social welfare, migrants must gamble greater health and financial risk when relocating for employment. While this piece has not delved into theories of labour-market segregation specifically, it does support the findings of Golley and Meng (2011) in that the Chinese economy does not fit the 'normal' description of a Lewisian dual-economy. The existence of political and institutional constraints which underpin Chinese labour markets mean migrants cannot access the same opportunities and benefits as an urban resident. All this is supported further by China's substantial floating population, which stands upwards of 180 million, suggesting a persistent, large and unutilised pool of surplus labour.

Naturally, and as highlighted under *4.3 Limitations*, since the results are based on secondary data they carry a number of limitations. These are particularly important to note when considering the quality and timeframe of available data for each indicator. Data collected from secondary sources can never be truly reliable. Nevertheless, data has been sourced responsibly from apparently reliable sources, and the results give a general overview of the conditions in China. As has been made clear, when combined, the analytical results from each indicator largely reinforce each other – further validating the results. All the aforementioned considered, when supply- and demand-side indicators are analysed in unison, there is no concrete evidence to suggest that China has met its LTP of economic development. Rather, data collected in this piece has built a solid case for the Chinese economy approaching such a point – where such would be facilitated more quickly if incentive- and legal-barriers to labour mobility were removed, allowing for the surplus pool of labour in the rural sector were utilised gainfully and

efficiently in the capitalist sector.

The existence of these political and institutional barriers attribute labour shortages in China's export-processing sectors by impeding in the elasticity of, and incentives to, migration. The result is a uniquely structured economy in which labour shortages and a surplus pool of labour can co-exist. With that, and marking this dissertation's point of conclusion – if legal and institutional barriers to permanent migration were not in place, and if incentives for rural residents to migrate were not skewed by additional and discriminatory hukou policies, China would likely have come further along in its developmental process – perhaps even passed its Lewis Turning Point.

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