

How Neoliberal Is China's Welfare State? Comparing the Chinese and US Net Social Wage 1992-2017

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Abstract

We compare the welfare states and taxation regimes of the two largest economies in the world, China and the United States, from 1992-2017. We begin with a comparison of each country's net social wage, the difference between total labor benefits and taxes paid by labor, using two established methods. We further explore the debate within the NSW literature over the proper treatment of indirect taxes and proposes a new NSW-inspired method which also makes use of additional data on rural-urban divisions within China. The results of the comparison suggest that China's welfare state has been less neo-liberal and more pro-labor than its US counterpart. While the net social wage in the two countries exhibited similar trends, the positive and increasing net social wage has distinct implications in the two countries. In the US, the positive net social wage reflects the plights of social reproduction, whereas, in China, it reflects institutional changes in the welfare state that have been used to resolve the social-reproduction crisis caused by the neoliberal reforms in the 1990s.

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1 Introduction

The welfare states of the two largest economies in the world, the United States and China, emerged in remarkably different historical and political contexts. In the US, the welfare state emerged as part of the New Deal reforms meant to address the poverty and inequality that became apparent during the Great Depression in the 1930s. The Civil Rights movement of the 1960s led to the creation of more social programs and policies during the “Great Society era” of the 1960s and early 1970s. In China, the welfare state emerged as an integral part of the central planning system that existed in most of the period from 1949-1977. Reforms in the 1980s and 1990s gradually but significantly re-shaped the welfare system as they weakened rural collectives and urban public firms that played a crucial role in the provision of welfare under the central planning system. Nevertheless, the two countries have deep economic ties--particularly with regard to the financial relationship between the US and Chinese capitalists--that political tensions, trade wars, and concerns about international competition seem unlikely to completely sever. This paper asks if the special relationship between the US and China extends to the welfare state and taxation regimes--specifically if Chinese and US workers have similar experiences of state redistribution in their respective countries.

It is increasingly well-accepted that the neoliberal era has not amounted to a full retrenchment of the state. Rather, neoliberalism typically rests on a policy mix in which the state plays an active role in creating and promoting markets, through deregulation, free trade, and weakening of labor and social protections. While it is widely accepted that the US has pursued neoliberal policies, the question of neoliberalism in China is more controversial [Weber, 2018]. There are undoubtedly features of neoliberalism in China, among which the mass privatization of public firms and commodification of labor power in the 1990s are the most important ones [Qi and Li, 2019]; however, there are also policies against neoliberalism, especially in the strong regulation of financial sectors [Lo, 2016, Weber, 2018]. Considering these mixed facts, we need more solid empirical evidence from a comparative perspective in order to evaluate the neoliberalism in China, which motivates us to compare how China’s and the US redistributive policy fares in relation to the other in this paper.

For this purpose, we compare the welfare states and taxation regimes from 1992-2017. We use an empirical method known as the net social wage (NSW) approach which measures the difference

between total labor benefits and total labor taxation. The contributions of this paper are the following. The NSW approach--which was first developed to study the net effect of redistributive policy in the US and has since been applied to a number of countries--has never been applied to China of the period from 1992-2017 before.¹ We choose the year 1992 as the starting point because, since 1992, China has established a market economy, which has induced not only the commodification of labor power but also significant changes in the welfare institutions and taxation systems. Thus, there is a basic comparability between the two countries over the post-1992 period. Second, our paper is the only paper to compare the welfare state and taxation regimes of the US and China using empirical methods from heterodox economics. In doing so, it further develops and explores the debate within the NSW literature over the proper treatment of indirect taxes. Third, our paper proposed a novel NSW-inspired method which also makes use of additional data on rural-urban divisions within China.

This paper will have the following structure. In the following section, we will review the relevant literature that compares the US and China in terms of social expenditures and taxation. In the third section, we will present two distinct methods of estimating the net social wage and discuss their different treatment of indirect taxes. The fourth and fifth sections will discuss the data and results. The sixth section will discuss the findings from a comparative perspective. The final section will offer concluding remarks about the heterogeneity and convergence of welfare states in the neoliberal era.

2 Literature Review: Can China and the US be Compared?

In this section, we will discuss the comparability between China and the US. As the top two largest economies in the world, the US and China exhibit many differences in regard to the stages of development and historical trajectories, both of which impact the form of the welfare state regime in each country. Table 1 compares economic indicators of the two countries. Despite of its rapid growth over the past four decades, China was much less developed than the US: In 2016, the real GDP per capita in China was 13% of the level in the US; the urbanization rate in China was 69%

¹A recent paper authored by Liu Fengyi and Liu Zijia (2019), published in the Chinese journal, *China Review of Political Economy*, compared the net social wages in China and OECD countries. However, they focus only on the recent period from 1999-2014.

of the level in the US. The two countries exhibited significantly different structure of aggregate demand: China had a higher reliance on investment and exports than the US.

[Insert Table 1 here.]

The National Transfer Accounts (NTA) is an empirical method that has been applied to both China and the US. The primary concern of the NTA method is assessing the influence of demographic shifts--in particular population age structure--on national economies [Lee and Mason, 2011, 3]. The NTA method is based on an accounting identity in which the “lifecycle deficit” is equal to the net flows of public and private transfers and reallocations [Lee and Mason, 2011, 11]. Based on age-specific labor income and consumption data, the NTA method can be used to construct “economic support ratios” and “fiscal support ratios.” Interestingly, both countries have an economic support ratio of 0.90 in 2000, and a fiscal support ratio of 1.0 in 2010. Both China and the US diverge from other countries studied using the NTA method. China is considered an anomalous case in that it has relatively low fertility and low child and overall consumption [Lee and Mason, 2011, 17]. While in most countries a decline in fertility has resulted in an increase in the investment in children’s human capital, this has not been the case in China [Li et al., 2011, 414]. The US is unusual because the elderly have higher consumption and labor income than any other country studied with this method [Lee et al., 2011, 313].

In addition, as shown in Table 1, both China and the US witnessed higher inequality (revealed by higher top income shares and lower labor income shares) and deeper participation in globalization over the period 1992-2016, both of which are crucial changes associated with neoliberalism. Compared to the differences between the welfare states of the two countries, differences or similarities in the trends of the welfare states are more important for examining whether China experienced a similar neoliberal transition as the US did. Creed and Liu [2014] argue that the US and China have experienced an “unwinding” of the social contracts which has increased economic disparity. While the countries experienced these in roughly the same time periods, the changes have been different--in the US the unwinding has been about undermining New Deal or Great Society Era protections and in China with the market reforms and opening beginning in 1978 [Creed and Liu, 2014, 39]. Like many countries throughout the world, both China and the US have experienced increased income inequality since the 1990s, making inequality a major political issue in both countries [Creed and

Liu, 2014, 48]. Globalization and the trade relationship between the two countries has been cited as a major contributor to growing inequality in both countries--in China between coastal areas with manufacturing jobs and inner lands, and in the US as a result of the loss of manufacturing jobs due to outsourcing and downward pressure on low-wage employment in general [Creed and Liu, 2014, 50-52].

3 Methods

3.1 Net Social Wage Approach, Traditional Method (NSW1)

The “traditional” net social wage method (NSW1) was first developed by Shaikh and Tonak[1987, 2000]but has since been applied to a number of countries. Maniatis [2003] and Akram-Lodhi [1996] have presented data on the net redistributive effect of fiscal policy in Greece and the UK, respectively--although the specific methods they employed are a variant of the traditional net social wage method and will be discussed in greater detail in the following sub-section.

The net social wage (NSW) is the sum of all social expenditures that benefit labor (E), minus the sum of all taxes paid by labor (T):

$$NSW_1 = E - T \tag{1}$$

In this method, social expenditures attributed to labor consist of programs that benefit labor entirely (E_1) and social benefits that partially benefit labor (E_2). E_1 consists of direct payments and transfers such as pensions, income support, public health insurance, and housing. E_2 consists of spending which benefit both labor and capital, such as education, funding for hospitals, energy, transportation, natural resources, and recreation. To estimate how much of E_2 is attributed to labor, we multiply it by the labor share (LS):

$$E = E_1 + E_2 * LS \tag{2}$$

Similarly, in the traditional NSW1 approach, taxes are also divided into two groups: T_1 , which are attributed entirely to labor, and T_2 , which are attributed partially to labor and partially to capital. T_1 consists of taxes associated with the cost of hiring workers, such as employee and

employer contributions to social insurance. T2 consists of income taxes, personal property taxes, motor vehicle taxes, and other miscellaneous taxes and fines. To estimate how much of T2 is paid by labor, it is multiplied by the labor share (LS):

$$T = T_1 + T_2 * LS \quad (3)$$

3.2 Net Social Wage Approach, Indirect Taxes Method (NSW2)

[Maniatis \[2003\]](#) studied the Greek net social wage between 1958 and 1995, finding that the net social wage was approximately zero, implying that there was no meaningful state redistribution on behalf of labor. [Akram-Lodhi \[1996\]](#) found that between 1970 and 1990, the net tax--the inverse of the net social wage--in the UK was positive, meaning that labor paid more in taxes than they receive in benefits.

[Maniatis \[2003\]](#) identifies that not all authors who employ the net social wage approach as originally formulated by Shaikh and Tonak. Another net social wage method, NSW2, includes a third category of taxes, T3, which is the sum of indirect taxes. In this method, T3 is multiplied by the labor share to estimate how much of indirect taxes can be attributed to labor.

$$NSW_2 = E_1 + E_2 * LS - (T_1 + T_2 * LS + T_3 * LS) \quad (4)$$

The debate over whether or not to include indirect taxes in calculating the net social wage is ongoing. The traditional NSW1 was designed as an accounting method based on Marxian analytical categories. It does not include a formal model of the economy, which some, including Shaikh and Tonak, argue is required to properly estimate who pays indirect taxes (see [Moos, 2019](#), 4). Whether or not multiplying T3 by the labor share is an appropriate method for imputing labor's share of indirect taxes remains unanswered. According to neoclassical theory, tax incidence cannot be determined by simply the statutory burden but instead is determined by price elasticity of demand. Those with inelastic supply or demand will end up paying the taxes, and those who have elastic supply or demand can avoid paying the taxes. Policy models typically use neoclassical assumptions and utilize consumer spending data to estimate elasticities of demand.

For our purposes, it is useful to calculate both the NSW1 and NSW2 for the following reasons.

First of all, indirect taxes play an important role in financing social expenditures, particularly at the state and local level in the US, and even more so at the central, provincial and local levels in China. As we will see, the NSW1 and NSW2 produce dramatically different results, adding layers of complexity to our comparative analysis.

Second, below we provide an interpretation of the difference between NSW1 and NSW2, which is based on social relations instead of demand elasticities.

In practice, taxation has both income effects and price effects, both of which can potentially impact the distribution between capital and labor. Income effects refer to the effects of taxation on the amount of value added and employment. For instance, an income tax may encourage capital flight, reducing domestic job opportunities, which repress the real wage level for workers. By contrast, the price effects of taxation impact distribution through changing prices of goods relative to nominal wages. For instance, an indirect tax may cause an increase in the price of the consumption goods, reducing the real wage level for workers.

Given that the NSW is an accounting method revealing the status quo of redistributive policies, this approach is not supposed to investigate the income effects of taxation. Nevertheless, it is necessary for this approach to investigate the price effects of taxation because these effects determine whether the taxes are ultimately paid with surplus value or variable capital.

To illustrate the price effects of taxation, suppose Y is the net value added of an economy, which is the sum of labor income W and capital income Π .

$$Y = W + \Pi \tag{5}$$

Let y be the real value added per capita, w be the real wage per worker, p the price level, and L the employment. Net value added, labor income and capital income can be written as:

$$Y = py \tag{6}$$

$$W = wpL \tag{7}$$

$$\Pi = \pi pL \quad (8)$$

Suppose there is an indirect tax τ . We use subscript 0 and 1 to represent variables before and after the indirect tax is imposed.

$$p_1 y = \tau + w_1 p_1 L + \pi_1 p_1 L \quad (9)$$

We do not consider the income effects of the indirect tax, thus the real value added and employment are both constant. Using Eq. 7 and 8, rewrite the indirect tax as :

$$\tau = p_1 L (w_0 - w_1) + p_1 L (\pi_0 - \pi_1) \quad (10)$$

Thus, the indirect tax can be decomposed into two parts: the first part is associated with the decrease in the real wage, and the second part is associated with the decrease in the real profits. This decomposition shows that tax incidence depends on the laws that regulate real wages and real profits, which are determined by the social relations between employers and employees. Thus, we provide a production-based or social-relation-based interpretation of the tax incidence, which is distinct from the Neoclassical market-based interpretation.

Our interpretation reveals that, theoretically, there are many ways to determine the tax incidence, which is contingent on the social relations between employers and employees. One possible scenario is that employers use a constant real wage to induce an optimal labor effort, which is consistent with efficiency wage models and the labor extraction model. In this scenario, the indirect tax is ultimately paid by capital through a reduction of profits. Thus, it is not entirely true that the traditional measure of net social wages has neglected indirect taxes; rather, we argue that this measure has assumed a particular social relation between employers and employees that may give rise to the mode of tax incidences. Another scenario is that employers have sufficient bargaining power over employees so that they are able to maintain constant real profits and make employees bear the reduction in real wages. Actual scenarios are likely to lie in between these two extreme cases. We thus provide a rationale for using the labor share to decompose the tax incidence. Given that the labor share can be seen as an index of employees' bargaining power, it is reasonable to

assume that the tax incidence of labor is the product of total indirect taxes and the labor share.

3.3 Social-Group-Based Net Social Wage Approach (NSW1R, NSW1U, NSW2R, and NSW2U)

Another innovation of our paper is to apply the NSW approach to social groups. In the case of China, we focus on two major social groups, urban workers and rural workers (including both urban migrant workers from rural areas and rural peasants), the sum of which is equal to what we call “labor” under China’s context. Despite a rapid urbanization process in the past three decades, China is still a dual economy with over 43% of the population living in rural areas, much higher than the level in the US. Meanwhile, China has a large urban floating population consisting of migrant workers from rural areas. Their households are semi-proletarianized and spatially separated because a migrant worker’s household tends to participate in both wage employment in urban areas and household farming in rural areas.

Focusing on these social groups has two benefits. First, we increase the compatibility between the two countries by comparing the welfare state for China’s urban workers with that for all US labor because the labor reproduction of these two groups are both urban-based. By contrast, the labor reproduction for China’s rural workers is semi-urban- and semi-rural-based. Second, dividing Chinese labor into urban and rural workers may reveal more aspects of the welfare state. Many studies have argued that household farming has subsidized capital in China due to semi-proletarianized reproduction [Li and Qi, 2014]. In this study, we can further evaluate the role of the welfare state in the reproduction of rural workers and reveal how different it is from that in the reproduction of urban workers.

Thus, we propose four new measures of the net social wage. NSW1R and NSW1U are the net social wages for rural workers and urban workers, respectively, both of which are based on NSW1. For NSW1R, we only consider fiscal expenditures that benefit rural workers and taxes paid by rural workers. NSW1U is equal to the difference between NSW1 and NSW1R. Similarly, NSW2R and NSW2U are measures based on NSW2.

$$NSW_{1R} = E_{1R} + E_{2R} * LS_R - (T_{1R} + T_{2R} * LS_R) \quad (11)$$

$$NSW_{1U} = NSW_1 - NSW_{1R} \quad (12)$$

$$NSW_{2R} = E_{1R} + E_{2R} * LS_R - (T_{1R} + T_{2R} * LS_R + T_{3R} * LS_R) \quad (13)$$

$$NSW_{2U} = NSW_2 - NSW_{2R} \quad (14)$$

In Eq.(11) and (13), E_{1R} are social expenditures that entirely benefit rural workers. E_{1R} consists of the fiscal expenditures on rural social insurances, rural education and health care, benefits for families under the poverty line, and agricultural infrastructures. E_{2R} are social expenditures that partially benefit rural workers. LS_R is the share of rural workers' income (farming income) in net national income. We use LS_R to calculate the amount in E_{2R} that benefit rural workers. Similarly, T_{1R} is the taxes attributed entirely to rural workers. T_{2R} is the taxes attributed partially to rural workers. In China, rural workers in most cases do not pay any income tax or property tax. Taxes associated with agriculture also played a minor role in China's total tax revenue. The Chinese government cancelled all kinds of agricultural taxes since 2006. Thus, T_{1R} became zero after 2006; T_{2R} was always zero over this period. Finally, we use LS_R to proxy the share of the taxes in T_{3R} that are attributed to rural workers.

4 Data

The data for calculating the US net social wage is introduced in detail by Moos [2019]. We use the same data sources and methods to extend the time series to 2017.

The data for calculating China's net social wage is from the official publications of the National Bureau of Statistics. The basic data source is the Flow of Funds Accounts data. We integrate this data with the official data on taxes and fiscal expenditures from China Statistical Yearbooks and China Financial Yearbooks, which are official publications of the National Bureau of Statistics and the Ministry of Finance, respectively. Table 2 presents the categories we use for each country and their data sources.

[Insert Table 1 here.]

There are a few caveats in the data. First of all, there was a change in the categories of fiscal expenditures in 2007; moreover, the official sources provide no clarification about this change. As we will see in later parts of the paper, 2007 was a crucial year in the dynamics of the net social wage, thus we have to insulate the impacts of changes in statistical criteria. To this end, we have compared data from different sources to make sure that the data prior to and after 2007 are sufficiently consistent. We have also conducted robustness checks by slightly inflating or deflating the data before 2007, finding that the main conclusions of this paper still hold.

Another caveat is that China's data sources about fiscal expenditures are not as detailed as the US counterpart. It is ambiguous how much a Chinese fiscal category lacking detailed information is relevant to social reproduction. "Environment protection costs" and "Costs of Urban and Rural Community Affairs" are two such categories. In this current version of the paper, we treat "Environment Protection Costs" as partially benefiting labor and "Costs of Urban and Rural Community Affairs" as entirely benefiting labor.

5 Results

Figures 1-4 have presented the main results of net social wages. All the net social wages and their components are normalized by nominal GDP. Figure 1 compares the traditional measure and the measure considering indirect taxes of net social wages in the two countries. Given that China's taxation system has a higher reliance on indirect taxes, the gap between NSW1 and NSW2 in China has been wider than that in the US. Figure 2 shows the components that have been used in calculating the net social wages. Figure 3 and Figure 4 present the net social wages for the rural workers' group and the urban workers' group in China, respectively. The main findings are summarized as follows:

[Insert Figure 1 here.]

[Insert Figure 2 here.]

[Insert Figure 3 here.]

[Insert Figure 4 here.]

First of all, regarding the levels, NSW1 in China was significantly higher than that in the US over the whole period. NSW2 in the two countries were similar from 1992-2001. While NSW2 in the US was higher than that in China from 2002-2012, it became close to the Chinese level from 2013-2017. It is noteworthy that the higher development level of the US economy means a stronger economic capacity to maintain a welfare state. Considering the levels of the net social wage and the difference in development levels, we conclude that China's welfare state was significantly less neoliberal and more pro-labor than its US counterpart.

Second, regarding cyclical changes, the net social wage in China exhibited less cyclical fluctuations than that in the US. The difference in cyclicity is a result of the different patterns of macro dynamics in the two countries: The economic growth was more stable in China than that in the US, thanks to the Chinese governments' active regulations on the macroeconomy and the state-owned enterprises' role in the stabilization of investments.

Third, in addition to cyclical changes, both countries exhibited structural changes: The US witnessed a rise in the net social wage at the turn of the century; by contrast, while the net social wage in China was slightly declined from 1992 to the mid-2000s, the post-2007 period witnessed a steep rise in the net social wage. Figure 2 shows that this rise was mainly associated with the acceleration of the growth in the social expenditures entirely benefiting labor. This finding suggests that there was a re-orientation of distributive policies around 2007-2008, after a fifteen-year-long stage that witnessed the implementation of neoliberal policies. Meanwhile, as shown in Figure 3 and 4, while this re-orientation occurred at the turn of the century for rural workers, it occurred around 2007-2008 for urban workers.

We argue that the re-orientation as a result of a response to a social-reproduction crisis was aimed at re-embedding social reproduction in a new set of social institutions. China was faced by a social-reproduction crisis from the early 1990s to the mid-2000s. The crisis happened in both urban and rural areas. It was mainly a result of neoliberal reforms. In 1992, in the context of the collapse of the former socialist block, China's leadership accelerated the marketization reform to pursue economic growth as a kind of political legitimacy. Major reforms during the 1990s were built upon neoliberal ideologies that unregulated markets and private property are the keys to economic

efficiency. These reforms led to massive privatization of China's state-owned enterprises, expansion of urban unemployment, informalization of jobs, and a significant increase in inequality.

Under the state-socialist regime before the 1990s, urban workers had access to all kinds of benefits provided by the danwei (unit) where they worked. A danwei could be a government department, a government-funded institution (such as schools and hospitals), a state-owned enterprise, or a collective-owned enterprise. This danwei-based welfare state collapsed with the fall of formerly state-owned enterprises and workers' communities. The reforms in the 1990s destroyed the former welfare state without establishing a new one, which jeopardized the social reproduction of urban workers. Meanwhile, the governments no longer restricted rural workers to work in cities; however, the vast majority of rural workers had no access to social insurances either in cities or in the countryside. The de-collectivization of the rural economy in the 1980s demolished the local basis for the collective provision of welfare. Although the average income of rural households was rapidly increasing as more urban jobs were open to rural workers, rural households with a lack of labor forces tended to encounter plights in social reproduction.

Since the mid-2000s, the Chinese government has implemented a series of distributive policies to re-establish a welfare state and resolve the social-reproduction crisis. These policies include the cancellation of agricultural taxes (2006), the establishment of a social insurance system for rural residents (medical insurances started in 2003, old-age insurance started in 2009) and a social insurance system for urban residents who are not in the labor force (2011). The Chinese government has also promoted participation in the social security system that is supposed to cover urban employees and consistent growth of subsidies to urban low-income families. The recent poverty-alleviation movement is to a large extent a continuation of this re-orientation. In addition, local governments in China has intervened primary distribution by consistently raising up minimum wages.

The Chinese leadership proposed concepts such as "Harmonious Society" and "Common Prosperity" as the ideologies that policymakers should fulfil; however, this ideological concepts reflected that the state was aware of the actual contradictions caused by the social-reproduction crisis. The privatization movement gave rise to social unrest among urban workers, which could be observed even in the late 2000s. The legitimacy of reforms was challenged by the huge inequality between private capital owners and laid-off workers. Many studies have documented incidents of labor unrest associated with privatization. Meanwhile, the underdevelopment of the rural economy has stimu-

lated labor outflows, which imposed threats to agricultural production. Grain production stagnated in the late 1990s, which was the first time since the de-collectivization reform was launched. The concern of rural development and agricultural production was the crucial factor that gave rise to China's redistributive policies benefiting rural workers and residents.

It is noteworthy that the re-orientation of China's welfare state happened slightly earlier to the global financial and economic crisis. Apparently, the crisis was not a cause of the re-orientation; nevertheless, it contributed to the continuation of the re-orientation because it has demonstrated the consequences of neoliberal policies to China's policymakers.

6 Discussion

How do we interpret the rising trend of the net social wage in both countries? Does it imply there is a common departure from neoliberalism in the top two largest economies of the world? Our analysis suggests that this seemingly common trend has distinct implications in the two countries. [Moos \[2019\]](#) argues that the positive net social wage in the US is evidence of the decline in conditions for the working class because it was the result of cyclical and structural threats to social reproduction. By contrast, China's working class has been gaining power since the mid-2000s, which was associated with factors such as the rapid economic growth, the shrink in the reserve army and policy support. Along with the rise in the net social wage in China, there was a consistent and rapid wage growth for both urban workers and rural workers over the same period. An ILO report observes that China was the country with the most rapid wage growth in the world from 2006-2017. The labor share has recovered from the historical trough point in 2008, which ended a fourteen-year-long decline. What happened in China was a systematic rebuilding of social reproduction, rather than a passive response to the plights in social reproduction.

This distinct feature of China's context proposes another question, which is related to the debate on profit squeeze that gave rise to the NSW approach: Dose the positive net social wage in China imply that profits are squeezed by both workers and the state?

We calculate the post-re-distribution income shares in China to show the impact of the welfare state on distribution. This calculation has integrated the NSW data with data about the primary distribution among labor, governments, and capital in the urban enterprise sector. The post-re-

distribution income share of labor (capital) is the sum of the labor (profit) share and the transfer: For labor, the transfer is the net social wage; for capital, it is governments' income deducting the net social wage. Figure 5 and 6 present the results, which use NSW1U and NSW2U, respectively. Both figures show that the post-re-distribution income share of capital grew over the period 1997-2006 and fell over the period 2007-2017. This suggests that a profit squeeze might happen during 2007-2017.

[Insert Figure 3 here.]

[Insert Figure 4 here.]

If taxing private profits is the only way the state finance the transfer to workers, then the profit squeeze for private capital would be inevitable. However, the capital structure in China has added complexity to the question. While the privatization movement of the 1990s significantly reduced the number of state-owned enterprises, the strategic sectors (such as energy, transportation, raw materials) are still dominated by large-scale state-owned enterprises. Because state capital concentrates in capital-intensive sectors, it contributes less than 20% of total employment but 50% of total tax revenues in the economy. Moreover, state capital contributes to the National Social Security Fund by transferring stock shares to the fund. This means private capital hires the majority of employees but contributes disproportionately less to tax revenues. Moreover, 70% of migrant workers did not have access to social security, most of whom were private capital's employees. Given these facts, a positive net social wage might squeeze the profits of state capital more than that of private capital.

It is worthwhile to note that the distinct features of China's welfare state do not mean that China is exceptional. The state-led re-distribution has been favorable to labor, which has sacrificed profits, although this re-distribution might be favorable to capital in the long run, through supporting social reproduction and social stability. The economic slowdown in recent years may further complicate this issue. Thus, there is an unstable balance between capital and labor, which has to be cautiously maintained by the Chinese state. Looking at a longer period of history, one may find that the Reform era in its early stage gained support from below through transferring income from the state to urban and rural workers; however, this trend in the early stage was reversed by the neoliberal reforms of the 1990s. From a historical perspective, one may consider the re-orientation in the

mid-2000s as a turning point of a long-wave movement that comes out of China's political-economic context. Where this long-wave movement leads to depends on how this context would be in the future.

Finally, it is interesting to note that the net social wage of the US became positive around the turn of the century when China joined the WTO and the Sino-US trade rapidly expanded. The neoliberal transition in the US has created poverty, unemployment and inequality since the end of the 1970s, thus increasingly more welfare expenditures are needed for social reproduction. Satisfying these needs is crucial for maintaining social stability, even in the neo-liberal context. Nevertheless, how much welfare expenditures can the US state sustain depends on its fiscal capacity. China has played the role of relieving the tensions between the consequences of neo-liberalism and social reproduction, for the following reasons. China's cheap exports have lowered the living costs of US households, reducing the burden of social reproduction for both labor and the state. The US dollars held by Chinese financial institutions have been re-invested in the US treasury bonds, helping the US government finance the net transfer to labor. China's exports and foreign reserves have contributed to sustaining the positive net social wage in the US. Nevertheless, quantitatively evaluating this relationship has been out of the focus of this paper.

7 Conclusion

In this paper, we have applied the net social wage approach to make a comparison of the welfare and taxation regimes between China and the US. The results of the comparison suggest that China's welfare state has been less neo-liberal and more pro-labor than its US counterpart. While the net social wage in the two countries exhibited similar trends, the positive and increasing net social wage has distinct implications in the two countries, due to their own historical trajectories in the neoliberal era. In the US, the positive net social wage reflects the plights of social reproduction, whereas, in China, it reflects institutional changes in the welfare state, with which the Chinese state attempts to resolve the social-reproduction crisis caused by the neoliberal reforms in the 1990s. Despite the differences, the positive net social wage in the two largest economies of the world implies that neoliberalism has met its social limits, which possibly points to two different paths. Contemporary neoliberalism might be overthrown by some countries like China, or, contrary to its own ideology,

it becomes more reliance on a strong state.

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Table 1: A Comparison of Economic indicators: China vs. the US

	1992			2016		
	China	US	China/US	China	US	China/US
Real GDP (trillion, constant 2010 US\$)	1.03	9.31	0.11	9.49	16.97	0.56
Real GDP (trillion, PPP, constant 2011 international \$)	2.16	9.50	0.23	19.81	17.33	1.14
Real GDP per capita (constant 2010 US\$)	886.95	36287.32	0.02	6883.90	52534.37	0.13
Real GDP in PPP per capita (PPP, constant 2011 international \$)	1851.32	14368.63	0.13	37045.33	53631.76	0.69
Urban population (% of total population)	28.20	76.10	0.37	56.74	81.86	0.69
Agriculture (% of GDP)	21.33	1.34 (1997)	15.95	8.13	0.94	8.64
Manufacturing (% of GDP)	38.00*	16.09 (1997)	2.36	28.96	11.12	2.60
Household consumption (% of GDP)	45.27	64.38	0.70	39.65	68.25	0.58
Investment (% of GDP)	31.11	19.83	1.57	42.98	20.17	2.13
Government expenditure (% of GDP)	14.39	16.08	0.89	14.39	14.22	1.01
Exports (% of GDP)	15.66	9.71	1.61	19.75	11.85	1.67
Foreign trade (% of GDP)	30.15	19.95	1.51	37.21	26.49	1.40
FDI, net inflows (% of GDP)	2.61	0.30	8.60	1.57	2.64	0.59
FDI, net outflows (% of GDP)	0.94	0.90	1.04	1.94	1.70	1.14
Top 10% income share (%)**	32.30	39.80	0.81	41.40 (2015)	47.00 (2014)	1.14
Compensation of employees (% of GDP)***	50.11	61.4	0.82	47.46	56.8	0.84

Sources: If not indicated, the data is from World Development Indicators database.

Notes:

* We use the industrial share in GDP instead because the data is unavailable.

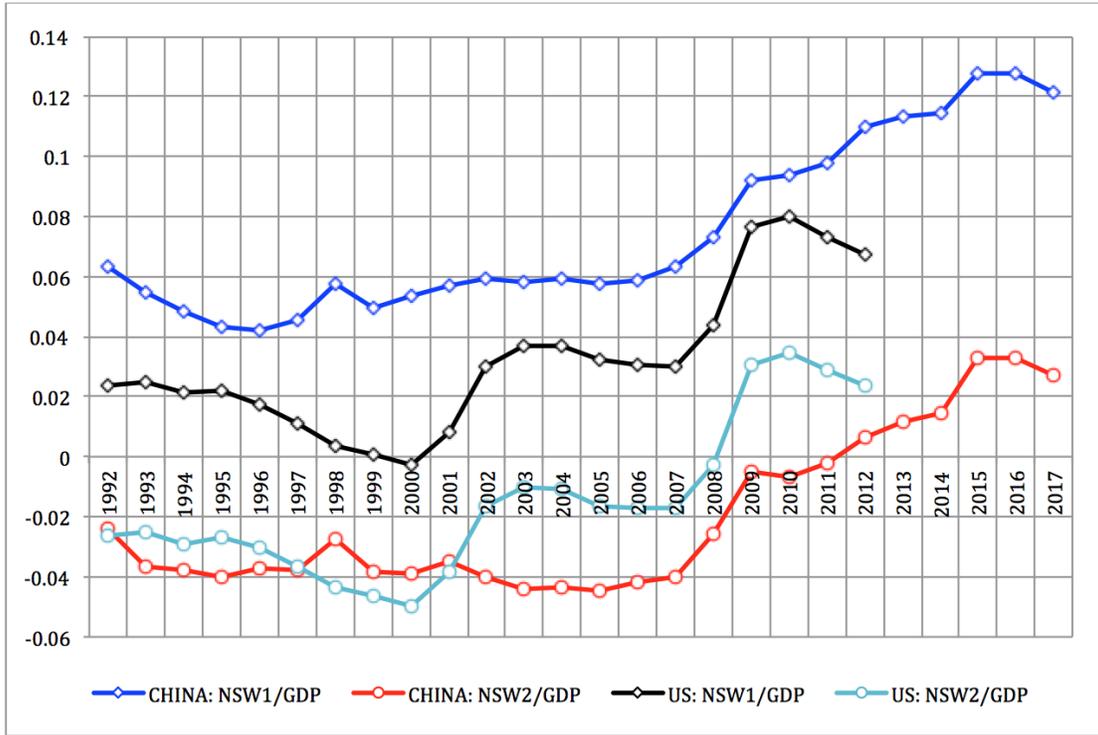
** World Inequality Database.

*** China Statistical Yearbook; AMECO.

Table 2: Categories of Social Expenditures and Taxation: China vs. the US

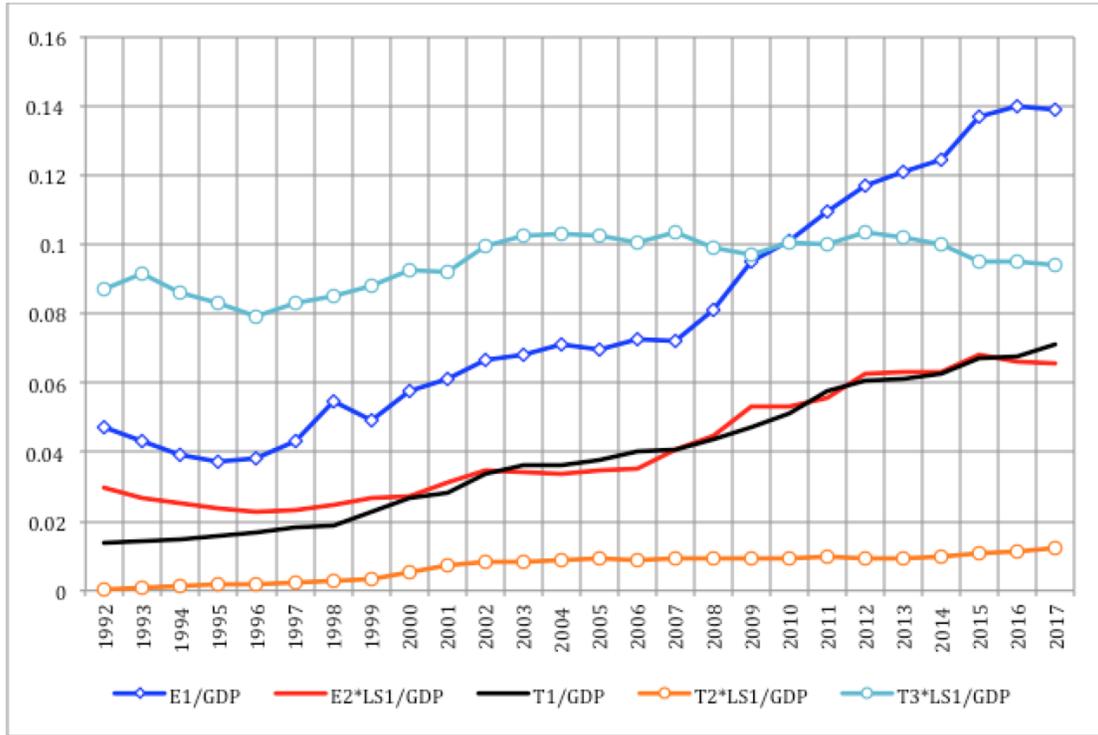
US NSW Category	China NSW Category
Labor Share	(Wages of employees + Employer-paid Social Security + Farming Income + Wages of Workers in Self-employed units)/Personal Income Added for China: Farming Income/Personal Income
Expenditure Group 1	
Social Security, Welfare, and Income Support	Social Security, Social Benefits, and Social Subsidies
Military and Veterans Benefits	Lack of Information
Employment and Training	Included
Housing and Community Services	Urban and Rural Community Affairs Added for China: Agriculture, Forestry, Water Conservancy and Irrigation
Expenditure Group 2	
Education	Education, Science and Technology
Health and Hospitals	Medical Care
Recreational and Cultural Activities	Culture, Sports, and Media
Energy	Lack of information
Natural Resources	Environment Protection
Postal Service	Lack of information
Transportation	Transportation
Tax Group 1	
Contributions for Social Insurance	Contributions for Social Insurance
Military and Veterans Contributions, Taxes on Self-Employed	Lack of information
Tax Group 2	
Federal Income Taxes, State and Local Income Taxes	Income Taxes
Personal Property Taxes, Other Personal Property Taxes, Taxes on Owner Occupied Housing	Property Taxes
Tax Group 3	
Taxes on Production and Imports	Net Production Taxes

Figure 1: US & China NSW1/GDP and NSW2/GDP, 1992-2017



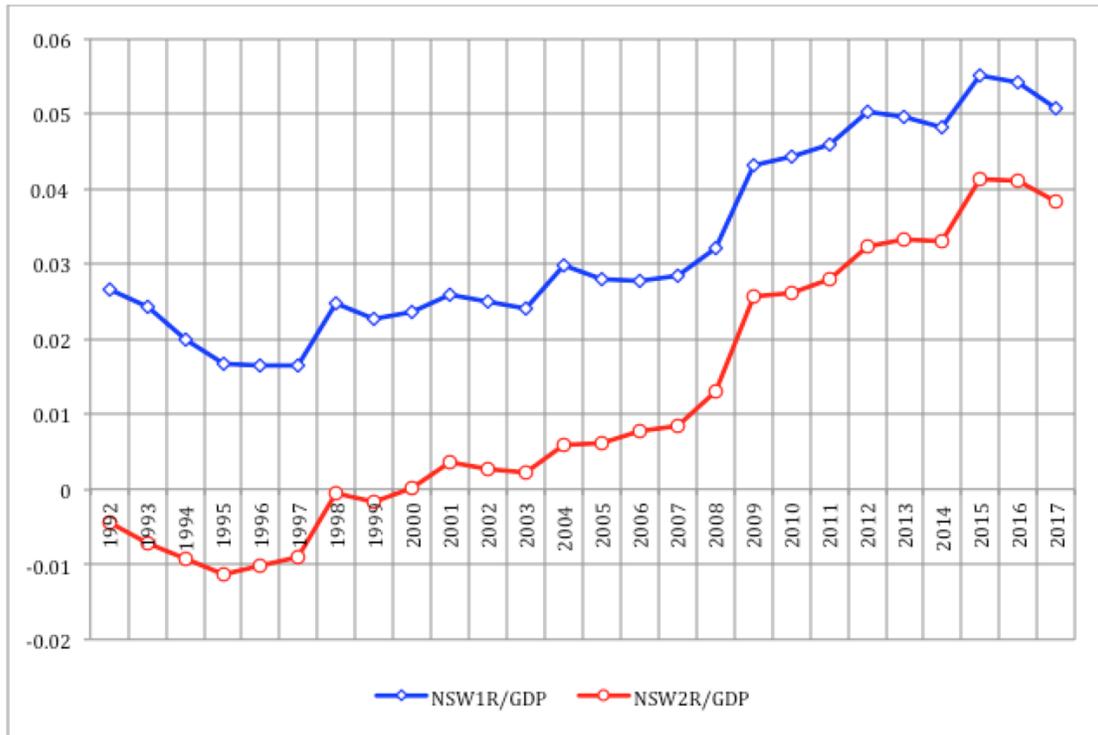
Sources: The authors' calculation. See Section 4 for details.

Figure 2: China Components of NSW2, 1992-2017



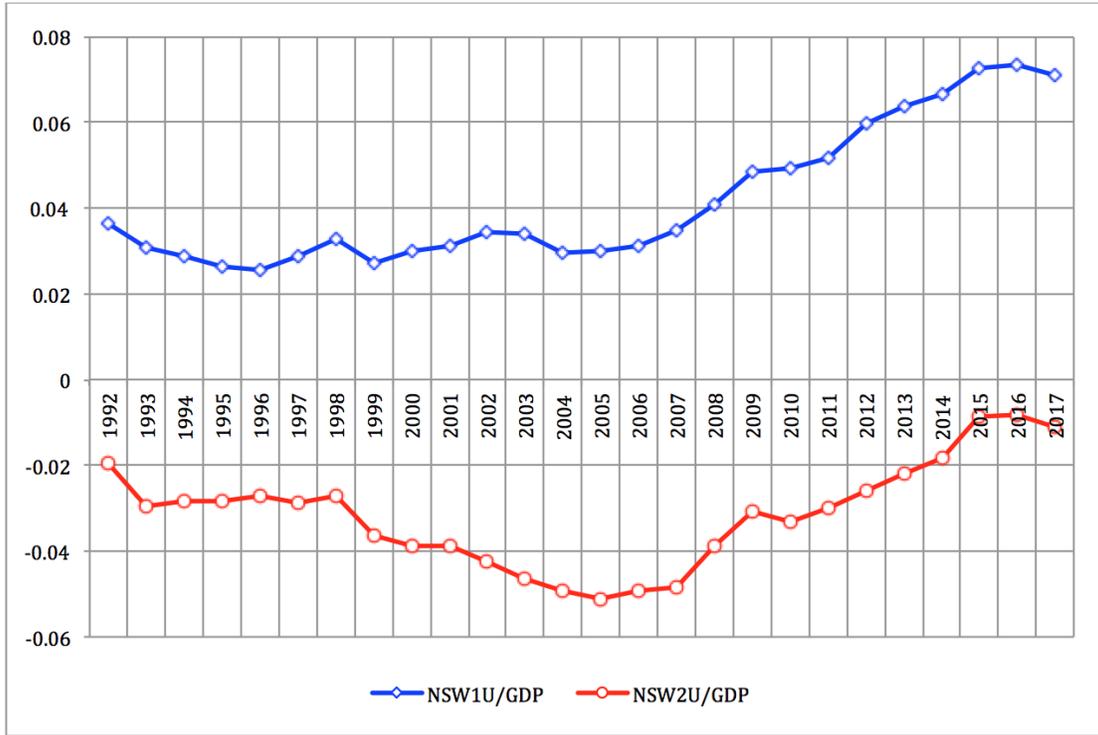
Sources: The authors' calculation. See Section 4 for details.

Figure 3: China NSW1R/GDP and NSW2R/GDP, 1992-2017



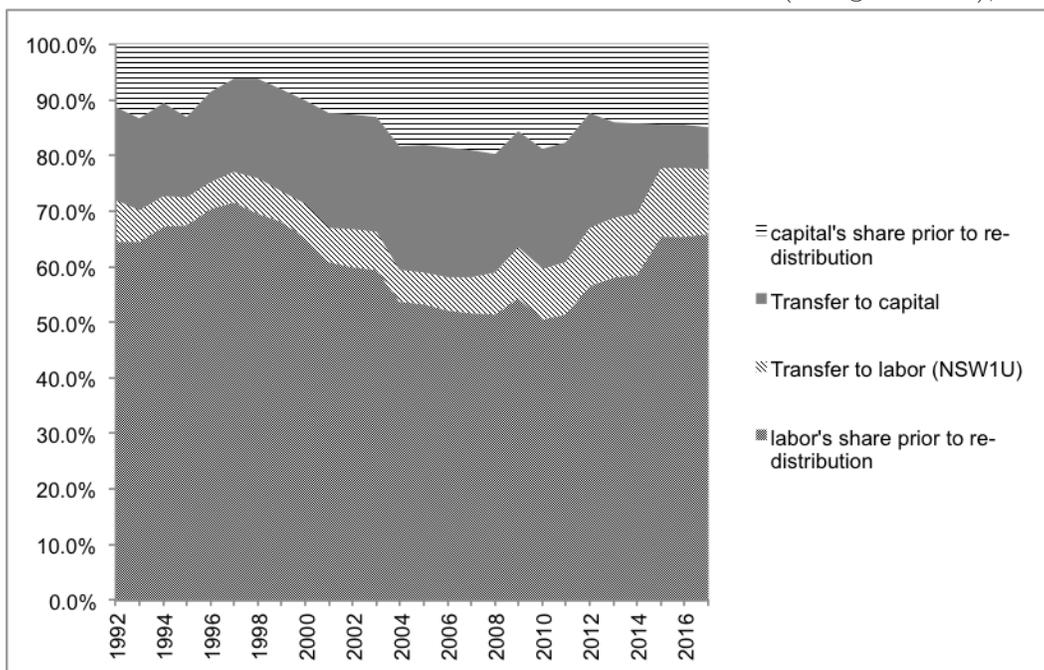
Sources: The authors' calculation. See Section 4 for details.

Figure 4: China NSW1U/GDP and NSW2U/GDP, 1992-2017



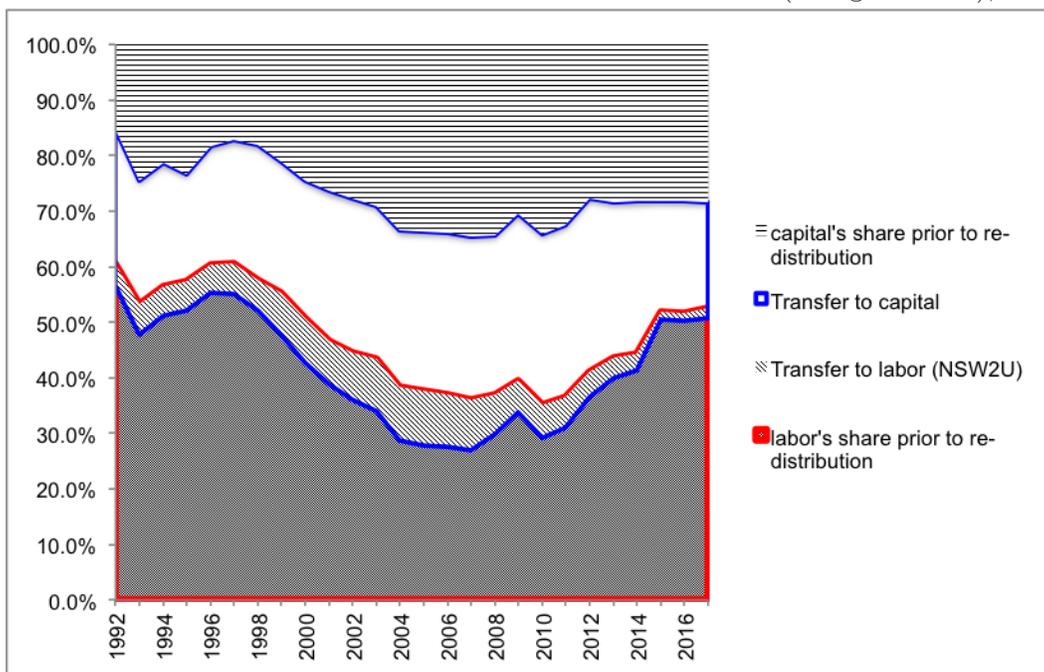
Sources: The authors' calculation. See Section 4 for details.

Figure 5: Income Shares in China before and after Re-distribution (Using NSW1U), 1992-2017



Sources: The authors' calculation. See Section 4 for details.

Figure 6: Income Shares in China before and after Re-distribution (Using NSW2U), 1992-2017



Sources: The authors' calculation. See Section 4 for details.