

ARTICLES

THE MODEL OF THE STATE DIGITAL PLATFORM ON LABOR CONTRACTS IN CHINA

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Abstract

The digitalization of the economy provides additional opportunities for businesses to ensure their competitiveness, increase of the production of goods, works, services, and their export. However, in this case, risks and threats arise for other parameters of macroeconomic equilibrium, in particular, for the labor market. Thus, digitalization not only creates risks for jobs, as the replacement of human labor with capital within Industry 4.0 ensures the competitiveness of businesses but also forces workers to accept significantly worse working conditions. In 2021 in our study we noted the risks and threats to the labor market due to digitalization. In this article, we will describe possible solutions that can be implemented by state in the regulation of the labor market at the present stage of economic development and digitalization. The purpose of the article is to create an opportunity to establish a state digital platform on labor contracts as a basis for solving the following cases: compliance with the rules for drawing up labor contracts and fulfilling their conditions; compliance of online platforms with working hours; activation of the trade union movement, suppression of violations of the rights to meetings of trade unions on Internet platforms; establishment of the minimum wage and provision of guarantees for its payment to employees of Internet platforms; extension of the social security system to workers employed on Internet platforms (health, social and pension insurance, vacation pay). As a result, the research substantiates a necessity of creating the model of the state digital platform on labor contracts.

Keywords

labor contracts, Internet platforms, the state digital platform on labor contracts, labor relations in the Internet platforms, social security system in the Internet platforms, macroeconomic equilibrium, digitalization on labor market

Conflict of interest

The authors declare no conflict of interest.

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СТАТЬИ

МОДЕЛЬ ГОСУДАРСТВЕННОЙ ЦИФРОВОЙ ПЛАТФОРМЫ ТРУДОВЫХ ДОГОВОРОВ В КИТАЕ

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Аннотация

Цифровизация экономики обладает множеством позитивных черт, к примеру, предоставляет предприятиям дополнительные возможности в сфере конкуренции, оказывает влияние на увеличение производительности, а также расширение экспорта. Тем не менее этот процесс создает риски и угрозы для других элементов макроэкономического равновесия, в частности для рынка труда. Так, цифровизация сопряжена не только с увеличением безработицы из-за замены человеческого труда как фактора производства капиталом в рамках индустрии 4.0, но и с ухудшением правового положения работников, поскольку вынуждает последних соглашаться на значительно худшие условия. В исследовании 2021 года мы выявили риски и угрозы для рынка труда, связанные с цифровизацией. В данной статье также описываются возможные решения, которые могут быть приняты при государственном регулировании рынка труда на современном этапе развития экономики и цифровизации. Цель исследования заключается в обосновании необходимости разработки концепции государственной цифровой платформы по трудовым договорам как основы для решения следующих вопросов: соблюдение правил заключения трудовых договоров и выполнения их условий; соблюдения онлайн-платформами режима рабочего времени; содействие развитию профсоюзного движения; установление минимального размера оплаты труда и предоставление работникам онлайн-платформ социальных гарантий; распространение системы социального обеспечения на работников, занятых на интернет-платформах (медицинское, социальное и пенсионное страхование, отпускные). Результат исследования свидетельствует о необходимости разработки государственной цифровой платформы по трудовым договорам.

Ключевые слова

трудовые договоры, интернет-платформы, государственная цифровая платформа по трудовым договорам, трудовые отношения на интернет-платформах, система социального обеспечения на интернет-платформах, макроэкономическое равновесие, цифровизация рынка труда

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Introduction

Macroeconomic equilibrium as a balance of production and consumption is ensured under the simultaneous fulfillment of four conditions:

1. Equality of actual output to potential output;
2. Equality of actual inflation to the expected level;
3. Equality of actual unemployment to its natural level;
4. The balance of payments is zero.

The fulfillment of all four conditions of the model, in reality, is difficult to achieve, therefore, a stable macroeconomic equilibrium is ensured by balancing these parameters. For example, if export significantly exceeds import and net export is a positive value that ensures economic growth, then there is a possibility that actual unemployment will exceed its natural level, or actual inflation will exceed the expected level. The quality of the state macroeconomic policy is reduced to ensuring a sustainable macroeconomic balance through rooted market institutions. Unstable macroeconomic equilibrium forces the state to intervene in economic processes and regulate the maintenance of equilibrium normatively.

Violation of macroeconomic equilibrium can take a form of a reduction in gross output, a growth of inflation and unemployment, or violations of the balance of payments.

Digitalization and industry 4.0 have created the prerequisites for replacing human labor with capital through the robotization of the production process. It turned out that living labor in the volumes that are represented in the labor market is simply not needed since capital successfully replaces labor (Osipov, Liu, & Geng, 2020). Nevertheless, digital platforms show steady demand for labor, as it is not possible to robotize the process of programming and supporting digital services. Our survey of 1.338 respondents across 25 internet platforms yielded the following disturbing data.

Table 1

Indicators of Decent Work for Digital Platform Workers

	Indicator	% of respondents
1	Lack of a mechanism for effective resolution of labor disputes due to the weak development of the trade union	79,2
2	Salary below living wage	33,3
3	Wages below the minimum wage	7,6
4	Not full-time employment contract	75,0
5	The working day lasts more than 11 hours	10,0
6	Lack of guarantees for the provision of medical services due to temporary disability	34,4

Note. Created by authors on the basis of Xu & Liu (2021).

Our study revealed that Internet platforms systematically and massively violate the labor rights of their employees, who are forced to work there due to the lack of other employment options. In China, around 10 million new workers enter the labor market every year. The State has taken a variety of measure to promote employment, including public work programs, tax credits for medium and small enterprises, stimulation of entrepreneurial activity, and support for flexible employment arrangements. However, not everyone found a solution to the problem of finding a formal job, especially given the increasing downward pressure on economic growth and the acute shock prosed by COVID-19 crisis. Under such circumstance, the online platforms act as the vast reservoir for surplus labor, which predictably led to deterioration in employment quality of massive lower-skilled workers, — from wage cuts to worsening working conditions and a social protection. Such opportunistic behavior of Internet platforms in China is quite understandable from the standpoint of the market, but not acceptable from the standpoint of ethics and morality. The social responsibility of business should not be an empty phrase.

If the working conditions of Internet platform employees in European countries and the United States turn out to be no worse than in other sectors of the economy, then the problem is not in industry specifics, but in the opportunistic behavior of the surveyed Internet platforms in Beijing. If it turns out that opportunistic behavior is acceptable and accepted as a strategy, then an unstable partial macroeconomic equilibrium has formed. It follows that state regulation of the labor market in this sector of the economy is required.

Methodology

The article continues our research carried out under a grant from the National Social Science Foundation of China (grant number: 16CJL036) and presented in Xu & Liu (2021). We conducted

a survey of 1338 respondents, employees of 25 Internet platforms in Beijing. The data of this survey turned out to be so important that based on them we decided to propose mechanisms for state regulation of an unstable partial macroeconomic equilibrium in the labor market in the sector of digital technologies and Internet platforms. The study used the achievements of macroeconomic theory, the theory of macroeconomic equilibrium (Acemoglu, 2009; Lucas, 2002), the theory of equilibrium unemployment (Pissarides, 2000). The institutional analysis and the theory of opportunistic behavior are of great importance for the study.

Opportunistic behavior is a type of unscrupulous behavior of an economic actor, aimed at obtaining unilateral benefits to the detriment of a partner. Among the various types of opportunistic behavior, we will be interested in moral hazard. Moral hazard is a form of post-contract opportunism, where it is difficult to control the performance of actions within the framework of contractual obligations, which creates a deliberately disadvantageous position for one of the parties to the contract. The other side of the contract thus receives the maximization of its profit to the detriment of the well-being of the first party.

This type of opportunistic behavior arises within the framework of the performance of the contract and manifests itself in the fact that one of the parties, using the asymmetry of information, market power, abuses its market power, behaves in bad faith, and violates preliminary agreements. (Williamson, 1975, 1985; Furubotn & Richter, 2000).

The problem of replacing the labor factor with the capital factor was considered in the works of Aloisi (2016), Cherry (2016), Dieuaide & Azais (2020), Menegatti (2018), Osipov (2019), Osipov et al. (2021), and Sundararajan (2016).

Social protection of labor was in the focus of research of Chen et al. (2020), Fabo et al. (2017), Graham et al. (2017), Kässi & Lehdonvirta (2018), Li et al. (2021), Liu et al. (2020), Muntaner (2018), Pulkka (2017), Scholz (2017), Todolí-Signes (2017), Webster et al. (2015), Yankovskaya et al. (2021), Zysman & Kenney (2017).

The issues of digitalization of the economy and the risks arising from this are considered in the following works: Gutbrod (2020), Inozemtsev (2020), Schmidt (2017), Sidorenko and von Arx (2020).

Results

The Ministry of Human Resources and Social Security (MHRSS) of the People's Republic of China is the ministry under the State Council that oversees national labor market policy and is also responsible for social security. The responsibilities of MHRSS includes the management of the labor force, the regulation of labor relations, social insurance, and the management of the legal aspects of labor relations.

Facing the decent work deficits experienced by vast online platform workers, in July 2021, MHRSS in collaboration with other 7 ministries issued the *Directive on Protecting labor rights of the New Forms of Employment*, covering principles of labor rights protection related to compensation, health and safety, working hours, social security, dispute settlements, and collective negotiation. In our opinion, in order to implement the directives proposed by MHRSS, and hence to overcome the unstable macroeconomic balance in the labor market brought by information technology and internet platforms, the state policy should be directed on the following five interrelated areas:

- Compliance with the rules for drawing up labor contracts and fulfilling their conditions,
- Compliance of the Internet platforms with working hours,

- Activation of the trade union movement, suppression of violations of the rights to meetings of trade unions in Internet platforms,
- Establishment of the minimum wage and provision of guarantees for its payment to employees of Internet platforms,
- Extension of the social security system to workers employed on Internet platforms (health, social and pension insurance, vacation pay).

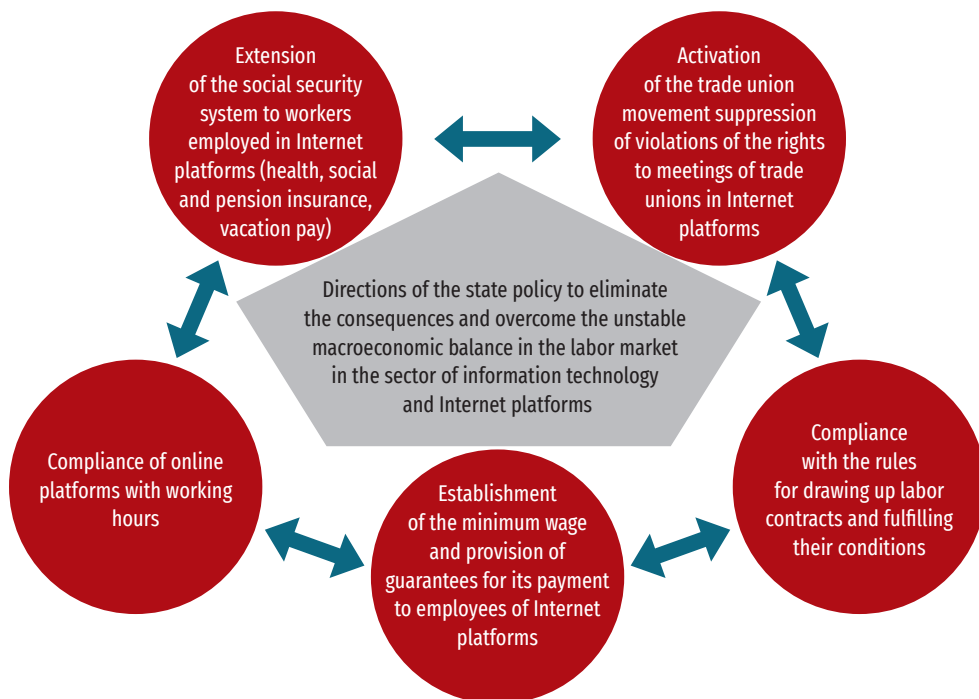
We propose a state digital platform on labor contracts as an integrated solution for the state policy implementation. The following Figure 1 “The Model of the State Digital Platform on Labor Contracts” demonstrates the principal model and philosophy of directions of state policy in the labor market.

1. Compliance with the Rules for Drawing up Labor Contracts and Fulfilling their Conditions

The opportunistic behavior of some Internet platforms towards their employees is expressed in the fact that the employee is a weak side in labor relations, that is, the Internet platform as an employer has great market power and, accordingly, has the power to force the employee to

Figure 1

The Model of the State Digital Platform on Labor Contracts



The state digital platform on labor contracts

Note. Created by authors.

perform obviously unprofitable for his working conditions. The worker, realizing that there are few jobs and high unemployment, is forced to make concessions to the employer. The first violation is the absence of a concluded labor contract, which immediately puts the employee in a dependent position. The lack of legal grounds for putting forward requirements for wages or working hours removes a lot of problems for the employer, since there is no contract, which means there is no way to prove one's case.

For example, on January 24, 2020, MHRSS of the People's Republic of China adopted special regulation of labor relations in connection with the introduction of quarantine due to a new coronavirus infection. The decision included a ban on termination of employment contracts, an obligation for employers to keep jobs, and a suspension of the statute of limitations for labor disputes. A correct and socially oriented solution might not have been implemented if we take into account the absence of an employment contract. In accordance with Art. 10 of the Law of the People's Republic of China "On an employment contract", the very fact of admitting an employee to work is a confirmation of the conclusion of an employment contract, but the employer is still obliged to conclude an agreement in writing. An employment contract with an employee after one year from the day on which the employee actually started work is considered unlimited following the requirements of Art. 14 of the Law of the People's Republic of China "On Employment Contracts". However, an employee, due to high unemployment threats and weak bargaining power, rarely makes such a demand since this will put himself (or herself) in conflict with the employer. Here, obviously, the protection of the labor rights of a citizen by the state is needed. An employee should not be expected to report a violation of his rights, as he will not want to conflict with his employer, therefore, other ways are needed to change the employer's opportunistic behavior. We believe that the state digital platform for registering employment contracts could help solve the problem of the employer's refusal to conclude a written employment contract. The employee may be required to register his employment relationship with the employer, and the employer is required to confirm such a record with his electronic digital signature. It solves both the problem of the gray or shadow labor market and the problem of collecting personal income tax, as well as increasing business transparency and protecting the labor rights of workers. Recently, some cities in China have initiated pilots of electronic labor contracts, which could be extended to cover the digital platform workers, as the first step to establish a state digital platform on labor contracts.

2. Compliance of Online Platforms with Working Hours

Under Art. 3 of the Regulations of the State Council of the People's Republic of China on the Working Time of Employees, the working hours in China are 8 hours a day and no more than 40 hours a week. The absence of an employment contract, as well as the persistent requests of the employer to increase the length of the working day beyond 8 hours, cannot be rejected by the employee if he does not want to lose his job. The reasons for the opportunistic behavior of the employer here are the same as in the previous position. The solution is laid down in the same Art. 3 of the Regulations of the State Council of the People's Republic of China "On the working hours of employees", which states that the duration of working hours can be increased with the consent of the trade union and the workers themselves by one hour a day. Such processing is paid at a rate of one and a half, for work on weekends — at a double rate, and on holidays — at a triple rate. Here the solution lies in the quality of the work of the trade union, because without its consent, the length of working hours cannot be increased. Hence, there is an obvious need for the development of trade unions at Internet platforms.

3. Activation of the Trade Union Movement, Suppression of Violations of the Rights to Meetings of Trade Unions at Internet Platforms

Since the creation of trade unions is the right of employees, but not an obligation, the absence of a trade union in the Internet platform may be the initiative of the employer. Her strong position in labor relations, as well as unemployment in the market, creates a subordinate status of the employee. These circumstances provide the basis for state intervention. The state digital platform for the registration of labor contracts may provide the option of the employee's consent or refusal to join a trade union. If for a given employer, for example, more than 10 % of the workers vote for the creation of a trade union, then it will be created automatically with the notification of the employer that the trade union body has been created at his enterprise.

4. Establishing a Minimum Wage and Ensuring Guarantees of its Payment to Employees of Internet Platforms

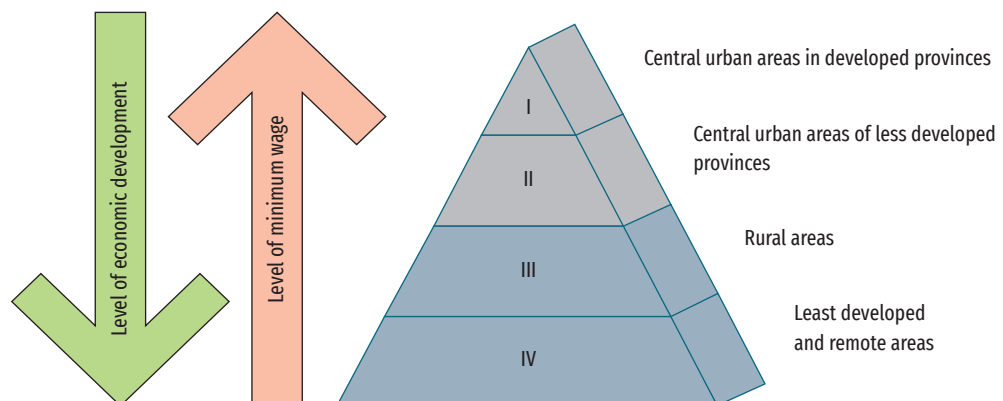
There is a different level of economic development across the regions of China. It was also reflected in the minimum wage, which is set in each region separately by Art. 48 of the Law of the People's Republic of China "On Labor". The government of each region, based on economic conditions, independently determines the minimum wage in the province for each of the categories into which the administrative-territorial units of the county level (counties, autonomous counties, city districts, etc.) are distributed. In total, four levels of economic development of the territories are defined (Figure 2):

- I. Central urban areas in developed provinces.
- II. Central urban areas of less developed provinces.
- III. Rural areas.
- IV. Least developed and remote areas.

Internet platforms are usually located in the economically developed territories of the first level, and, consequently, the minimum wage is the highest here. This gives rise to the opportunistic behavior of the employer and provokes the desire to save the cost of both wages and social contributions per

Figure 2

The Model of Minimum Wage in the Provinces of China



Note. Created by authors.

employee. Here it would be possible to use the previously proposed state digital platform for employment contracts, where you can enter a classifier of the territory of registration of the Internet platform and automatically determine the minimum wage with the notification of the employer.

5. Extension of the Social Security System to Workers Employed in Internet Platforms (Health, Social and Pension Insurance, Vacation Pay)

This direction is also closely related to the fact of concluding an employment contract since it posed the possibility and obligation of the employee's social insurance. There is a Social Insurance Law in China that requires employers to pay contributions for basic pension insurance, basic health insurance, work injury insurance, unemployment insurance, and maternity insurance (maternity insurance). It is important to note that basic pension, health, and unemployment insurance are paid jointly by the employer and the employee, though work injury and maternity insurance premiums are paid only by the employer. The joint payment of contributions creates co-dependency between the employee and the employer. If one side pays the contributions, the other will have to do the same. The absence of an employment contract removes the problem of paying contributions for the employer, which corresponds to his opportunistic behavior. The state digital platform for registering employment contracts may contain the option of automatic payment of contributions by the employee from his bank account, which will automatically entail the obligation of the employer to pay his part of the contributions

Discussions

The state digital platform on labor contracts forms a new model of labor relations between participants based on digital technologies. In comparison with the traditional system of labor relations regulation, it removes barriers to the realization of the workers' rights to the minimum wage, strengthening the discipline of labor contracts, social guarantees, and guarantees of trade union protection of their rights. It is important to note that the proposed state digital platform for registering employment contracts, unlike other digital platforms, does not obey Schumpeter's law of innovative destruction, since labor relations in this part are not destroyed but rather strengthened by improving control over the employer and pushing the employee to the indirect protection of their rights through mandatory actions to enter information into the database of the state digital platform for registering employment contracts. Thus, the proposed digital platform does not destroy labor relations but prevents their destruction due to the opportunistic behavior of the employer. However, crucially, the possibilities of control by the state in the current system of labor relations are extremely difficult both due to the number of employees and the number of employers.

The trend of modern labor relations between the employee and the employer is that the employee can be hired by an Internet platform on an hourly basis according to the piecework system, which removes the problem of additional social obligations of the employer to the employee. This situation leads to a very high economic efficiency of an Internet platform as a business, since social obligations here do not reduce profitability compared to the real sector of the economy. However, it is this fact that becomes the basis for the opportunistic behavior of the employer, which affects the employee most negatively. The owners of Internet platforms in defense declare that they provide work to freelancers on the terms of project management, in fact, using labor on the terms of the sharing economy.

It is important to note that the state can also use Internet platforms or digital services to improve the efficiency of public administration by providing public services in a new format, more convenient,

transparent and faster. Here, the simultaneous reduction of public spending on the inefficient execution of public services using outdated technologies is accompanied by both an increase in the quality of public services and a reduction in public administration costs. At the same time, the reduction in public spending is not accompanied by a reduction in the social obligations of the state, which means that the way to increase the efficiency of public spending is the only possible one. On the other hand, the massive violations of the rights of Internet platform workers, which we identified in the survey, indicate the need to introduce new, more modern mechanisms for rooting labor law institutions in the interests of the whole society. This is the most important task of public administration, which the state digital registration platform can handle labor contracts. Such a platform can become a prototype of the transition to a digital state or a “Lean Government” (L-Government), when more public services are provided for less money. State digital platforms in this model play the role of a space for interaction between economic actors, where the state acts as a coordinator and arbiter. A practical technical solution at hand is to connect the major online labor platforms with the state platform using middleware to ensure data transparency and data exchanges. In the foreseeable future, by application of blockchain technology, an integrated platform hosted by the state could be established to ensure real-time data sharing, tracing, and automatic compliance with codes of regulation empowered by smart contract techniques.

It is important to note that the state digital platform for the registration of labor contracts acts as a labor market infrastructure that facilitates the establishment of civilized economic relations regarding the main factor of production, that is labor. The data that will be accumulated in the state digital platform on labor contracts will become big data as it accumulates. It will be possible to make government decisions to further improve labor relations and the labor market as a whole. The functioning of the state digital platform on labor contracts will require new competencies and abilities from civil servants and MHRSS of China as the main labor market management body, the transition to new thinking and labor market management tools in the Internet platform sector. In the future, upon receipt of evidence of the effectiveness of the state digital platform on labor contracts, its experience can be expanded to all sectors of Chinese economy. Internet platforms will contribute to a more efficient and rational use of labor and artificial intelligence in the interests of society, as well as develop government decision-making process based on big data.

Conclusions

The digital platform for registering labor contracts is a database of concluded labor contracts, indicating the territorial minimum wage following the level of socio-economic development of this territory, the possibility of voting on the creation of a trade union, and the payment of social contributions by the employee. Such functions will reduce the possibility of employers' opportunistic behavior in Internet platforms and will root the institutions of labor law in this sector of the economy.

It should be noted that the opportunistic behavior of the employer is also an ingrained institution, the habituation that happened very quickly and steadily. It is improbable that opportunistic behavior can be quickly eliminated. It takes time, the persistence of the state, perhaps even the application of economic sanctions to violators, and strict control over the implementation of regulatory requirements. Gradually, opportunistic behavior will come out of the practice of application in labor relations, which will entail both the observance of the rights of workers and the tax discipline of employers, which means it will contribute to the development of justice in society and the growth of the welfare of the population.

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