Graduate Unemployment in China: A Market Demand Perspective

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Abstract: China’s recent upsurge in graduate unemployment has aroused increasing attention of the society. This paper reviews a couple of classical theories about graduate employment, including over-education, educational deepening and educated unemployment, labor market segmentation, as well as supply-demand structural imbalance. It also analyzes five influential factors in market demand for graduates, namely economic development and industrial structure adjustment, labor market mechanism, recruitment tendency of employer, structural problem of higher education, high employment expectation and frictional unemployment. Measures and considerations of how to increase the market demand for graduates are then presented.

Keywords: graduate unemployment, market demand, structural imbalance

1 Introduction

The official employment figure of the second quarter of 2010 in China has been released recently. The figure indicates that although the labor supply and demand keep balance, the structural imbalance still remains. In the job-seeking groups, a special attention should be paid to the group of new growing unemployed youths, i.e., those who just “graduated and unemployed immediately”. Compared to last quarter and the same period of last year, this group has a great increase, 24% and 24.3% respectively. And in this group, those graduating college students contribute the most, with an increase of 35.5% and 38.4% respectively. In the group of new growing unemployed youths, the graduating college students account for 45.9%.

According to the Three Phase Theory of Higher Education, the transition from elite to mass to universal access, described by American scholar Martin Trow, higher education in China has transformed from an education for the elite to one for the public since the enrollment expansion in higher educational institutions starting from 1999. In fact, college admission expansion has generated both negative and positive effects, among which the most unexpected influence is perhaps the employment difficulties many fresh graduates have experienced in recent years.

Extensive research has been conducted to unveil the reasons of this phenomenon. Though quite a few people argue that the extended university enrollment could be the culprit of graduate unemployment, more people believe that the issue should be regarded as something structural or rather a superficial surplus in that.

With a focus on labor market demand for graduates, this paper analyzes a number of factors which have made a great impact on social need for graduates and put forward proposals on demand expansion.

2 Literature Review

Human capital theory believes that education exerts positive influence on improving employability and promoting career change of individual. Since 1980s, this point of view has won support from the majority of Chinese scholars, who hold that education plays an important role in solving employment problems. However, this legitimate concept does not coincide with the reality people are facing nowadays: the educated have increasingly encountered employment difficulties rather than get

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1 Ministry of Human Resources and Social Security of the People’s Republic of China
employed smoothly. Why did it happen? People have been trying to explain this phenomenon from different perspectives, among which several representative viewpoints are discussed as below.

2.1 Over-education
In his book The Over-educated American (1976), Richard Freemen argues that since the 1970s in the US the return on education has declined as young workers with university education have to settle for jobs that do not require for a degree. He concludes that over-education, the supply of educated workforce outstripped demand, is the root cause of this phenomenon. Further studies was conducted by Tsang & Levin in 1985, who summarized that over-education can be defined in three ways: an unprecedented decline of the economic position of the educated; under-fulfilled job expectation of the educated; or the surplus educational skills the employees obtained than the position required. Considered both the supply-demand relationship of education at social level and feelings of individual who received education, this model is obviously more specific than Freeman’s. Therefore, it has been widely used to judge whether over-education exists in one society since 1980s. As a consequent of over-education, graduates are experiencing difficulties in finding jobs matched with their educational levels since those vacancies have been filled by others with higher degree, which leads to temporary or frictional unemployment.

2.2 Educational deepening and educated unemployment
In 1950s, William Arthur Lewis, an American economist developed the two-sector model of economic growth, in which two sectors in the economy of a less-developed country were posited: the modern and the traditional. The modern sector is small and uses considerable amounts of capital, whereas the traditional sector is large and not capital-intensive. The development of modern sector is achieved partially by attracting workforce from the traditional one. As an incentive to promote this manpower transfer, wages in modern sector are somewhat higher. Consequently, modern sectors are thronged with educated applicants competing for limited positions. As the rapid development of education, the supply of knowledge worker overwhelmingly exceeds the vacancies in modern sectors. In this context, modern sectors tend to hire people with higher degree of education for their job vacancies traditionally filled by those with lower education, which is named educational deepening.

Educated unemployment is another phenomenon associated with educational deepening, or it may be regarded as another perspective of educational deepening. One consequence of educational deepening and educated unemployment is the unrealistic expansion of education, in which all levels of education are forced to extend every time when employment situation gets worse. As a result, many graduates are forced to work for “sub-graduate” jobs or positions which do not match with their majors. It is obviously a waste in resources from both the society and graduates aspects.

2.3 Segmentation of labor market
According to the theory of labor market segmentation, M. Piore and B. Doeringer suggested in 1970s that labor market has been segmented into primary and secondary markets, differentiated mainly by education background requirement for applicants and correlation between education background and income. In primary labor market, university education is a must, jobs are stable, with good working conditions and welfare, good development opportunities, correlation between education and income is also positive. Whereas in secondary labor market, a high school education is good enough, jobs are unstable with low wages, no apparently positive correlation between education and income.

In secondary segment, employees normally have low job satisfaction, weak sense of belongings, frequent changes of jobs, but it is almost impossible for them to get employed in primary market. Whereas in primary division, although it is relatively easy for unemployed individual to get jobs in secondary labor market, they would rather remain unemployed in this segment, considering the benefit gap between two markets and the difficulty of returning to primary jobs once get employed in secondary
As addressed in this theory, the increase in unemployment of graduates is a result of the constant decrease in employment opportunities in primary labor market and the unwillingness of seeking employment in secondary segment. At present, there has been a complicated segmentation of labor market in China for historical reasons, apart from city-rural segment, SOE-non-SOE segment, segmentation has also presented salary gaps of same positions between different industries and different regions, which has exerted influence to employment expectations and destinations of graduates.

2.4 In-equilibrium of supply structure and demand structure
In labor market, the demand for labor and talent represents itself a request not only for quantity, but also for workforce levels and professional structure. Many Chinese scholars agree that three distinct problems have been witnessed in graduate employment recently. The first one relates to different situations for graduates with different majors or disciplines. It is relatively easy for some graduates to get employed, whereas others have a struggle finding jobs. The second one is that job market for university and college graduates have been occupied by postgraduates. The final problem concerns graduates themselves, as their competences are not high enough and their scopes of knowledge are relatively narrow. To some extent, these problems reflect the mismatch between the supply structure of education system and demand structure of labor market.

3 Analysis in the Influential Factors in Market Demand for Graduates

3.1 Economic development and industrial structure adjustment
Undoubtedly, economic development is a fundamental factor which will have great impact on employment. As pointed out by theories of labor economics, the demand for labor is derived from economic need, the faster economy grew, the higher the demand for manpower rose. In contrast, the capacity of absorbing workforce will be diminished in economic downturn. Therefore, the demand for graduates, or even the overall employment situation of a nation at certain period is determined, to a great extent, by the pace and scale of social and economic development.

The economic development history worldwide demonstrates a positive correlation between economic growth and employment growth, yet the pace of the growth differs due to industrial structure upgrade and optimization triggered by economic development. Employment elasticity presents itself a “U” shape. In the first industry represented by agriculture, where productivity is low and demand for labor force is strong, employment elasticity is high. As the technology advancement, the second industry achieves a rapid growth, where in the early stage of the development in manufactory industry elasticity of employment remains high because of the great demand for surplus labor from the first industry. However, along with the upgrade in industrial structure, manufactory industry becomes more technical and capital-intensive, rather than labor-intensive. Normally, employment elasticity declines when the second industry accounts for a large proportion in a nation’s economy. Then the growth of the third industry makes a heavy demand on workforce because of its labor-intensive nature, elasticity of employment raises again.

The evolution of three industries has shown a relay in the capacity of absorbing labor force, in which the employment capacity in the rising industry rapidly reveals to counter-balance the decrease in traditional industry; therefore the employment level remains stable as a whole. In other countries, the third industry is normally labor-intensive and has strong capacity of taking workforce. Moreover, the scope and level of growth in the third industry are determined by that in the second industry. There lies a relationship between the two industries in which demand creates supply and supply in turn stimulates demand. In fact, the development in the third industry faces great pressure as the increase in household income and change in demand structure of citizens. Currently in China, employment elasticity in the third industry is relatively low. The main reason of this is that the low level of economic development gives rise to ineffective industry upgrade, which in turn causes problem in labor transfer among different industries.
and results in strong friction effect.

3.2 Labor market mechanism
Significant improvement has been achieved in labor market segmentation situation in China, as some institutional factors are disappearing. However, compared with those mature and normative ones, labor market in China is still problematic, in other words, some institutional or non-institutional factors become stumbling block for graduate employment.

One obstacle is local protectionism. Local protectionism manifests itself as discrimination against residence registration (known as “hukou”), education experience and colleges. There has been a loose in once extremely strict hukou system since 2001. Unfortunately, it remains a major holdback of graduate employment since no substantial breakthrough has been made. In some organisations, “local hukou” is one necessary criterion in recruitment decisions. In some cities, special policies are implemented to attract non-local talent in order to build “talent highland”. Graduates who hold certain degree or reach particular conditions (such as graduated from named universities) will be entitled to work, settle and become official residents in these cities. Others almost have no opportunities. This obvious local protectionism will not only limit the free flow of graduates and therefore raise their job expectations, but also further the tendency of “excess consumption of talent”, which means graduates undertaking non-graduate jobs.

Another factor is rigidity in post, a quite common phenomenon in Chinese labor market. On the demand side, talent in need cannot enter the organisation whereas people does not need cannot exit; consequently the cost of layoff is high. On the supply side, it is almost impossible for graduates to choose positions suited for their capabilities and interests due to restrictions mentioned above, which leads to a high cost of job changes. The free flow of labor force among different industries, departments and regions is a precondition of promoting the match between education and employment. In mature labor market, the frequency of job change is relatively high and it is rare for employee to stay in one position for over ten years in developed regions such as the US and Europe countries. In China, however, shift in jobs always confronts institutional barrier, in which personal file is used as a means to prevent the loss of workforce in some places. Graduates’ personal file and hukou have been solidified to some extent once they begin to work in some organisations. This practice reinforces the traditional notion of “once employment determines the whole life”, becoming a great challenge to modern employment concept of “getting employed first, choosing career later”. It also produces a fear of working in grass level enterprises and less-developed regions among graduates.

The last obstacle is operation mechanism of employment market. Currently China is in the process of establishing a sound market economy system, so establishment of labor market is lag behind. Although job assignment system has been abolished, job market for graduates has not been well-established in terms of information providing and supply-demand channel setting. At present, there exists three markets for graduates, one graduates employment market within education system, another talent market belongs to personnel department, and the third labor market set up by labor department. In addition, there are different levels of job fairs organized by private agencies. The diversification in employment channel is beneficial for graduates to acquire more job information. However, the communication between various markets is not efficient, and the purpose of different market varies. Although some profit-driven labor markets are thronged with applicants, very few graduates get employed successfully. These unpleasant experiences have a negative influence upon graduates’ initiatives in job hunting.

3.3 Employer’s recruitment tendency
The creation of jobs is determined ultimately by recruitment practice in organisations, thus the attitude and tendency of an employer will exert direct effect to the demand for graduates. In the past, recruitment decisions are based merely on degree of a candidate rather than his or her ability in many enterprises. This situation has been changed in recent years as a result of the increasingly fierce competition. As scientific human resource management theories developed in foreign countries have been accepted by
more Chinese organisations, the selection process in these organisations becomes more practical, in which hiring decision is made by the real need of a post instead of degree of an applicant and the attitude of recruiting becomes more cautious.

Meanwhile, whether organisations satisfied with employed graduates will also have a lagging influence to the demand for graduates. The relationship between organisations and graduates is similar to that between consumers and products. If consumers found that the qualities of products they bought fails to reach their standards, they would never choose the same products again. Therefore, employer’s evaluation to graduates is a key factor which will determine whether the supply meets the demand and the prosperity of job market for graduates.

3.4 Problem of higher education structure
3.4.1 Major set-up in universities lags behind the demand of social economic development
By the end of 2009, there were 2305 regular higher education institutions in China\(^2\). In general, knowledge structure of graduates does not satisfy social need; neither does major set-up in universities follow the rapid changes in market. According to the Chinese College Graduates’ Employment Annual Report (2009), known as the Blue Book of Employment, college students in eight majors, including Law, Computer Science and Technology, English, became the most unemployed graduates for three years in a row, from 2007 to 2009. 10 majors including Law, English, International Trade, Biological Technique, Cartoon are named high risk majors. Ironically, however, such majors were once the most popular ones in labor market several years ago. Statistics show that the speed of changes in market demand for professional and managerial talent is 2 to 4 times faster than that of major adjustment in universities, which is normally a 4-year cycle. Therefore, the time-lag between supply adjustment and demand change is one of the major reasons of graduate unemployment.

3.4.2 Structural imbalance in talent supply
In spite of employment difficulty for most graduates, talent with practical professional skills is in great shortage. The Employment Blue Book finds out that engineering graduates majoring in Geological Engineering, Ship and Marine Engineering, Petroleum Engineering and Mining Engineering are the most welcomed in the job market.

In addition, considerable mismatch exists between supply of and demand for people with agricultural expertise. The average number of technicians among every 10,000 agricultural populations in China is 6, whereas in other developed nations such as America, Japan and Germany, the figures come up to 40, statistics said. The more crucial fact is that only 2.5% of rural workforce received higher education and 13.6% received professional training, indicating a relatively low overall competence of agricultural technicians\(^3\).

3.4.3 Quality of higher education declines
The decline in education quality is another important reason of graduate unemployment. Although a few key universities have gained sufficient support from the government after the extended enrollment, the majority of universities may confront a decline in education quality for two main reasons. One reason is that, comparing with the pace of expansion, the change in universities’ conditions is rather slow due to the shortage of resources. Another reason is that the development in secondary and primary education is slow comparing with that in higher education, which affects the quality of the pool of candidates for universities.

3.5 High job expectation and frictional unemployment
Unemployment triggered by employment notions is an example of frictional unemployment, which

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\(^3\) Liang Chengyun, Quan Xiongji, Zhang Shoufa, Research on the Scale and Ability of Talent in Building New Rural Area, 2008.
involves people in the midst of transiting jobs and searching for new ones within half a year given insufficient information on labor market. One reason contributes to this type of unemployment is the mismatch between the expectation and the reality, typically relates to salary. The broader the gap exists, the longer the unemployment may last.

At present, Chinese higher education has stepped into an era of popularity. Unfortunately, however, graduates' thoughts about employment remain unchanged as the education is still an elite one. Ideas such as being a cadre in the government organisation, working as a white collar or holding an “iron rice bowl” are still popular among graduates. Whether the salary of a post is high or whether it is in large cities or more developed regions are major considerations when they make career choices.

Graduates' salary expectation is on the decline in recent years as a result of financial crisis and graduate unemployment, however, the gap between desired wages and organizational payment still remains. According to a recent survey, the average starting salary for graduates offered by organisations in 2010 is 2694yuan per month, 9% lower than graduates’ expectation, 2935yuan per month\(^4\). Some graduates even complained “I will definitely not accept an offer of 1800yuan, I would rather die!”\(^5\)

Additionally, a majority of graduates prefer to work in large stated-owned enterprises and high-tech organisations rather than small and medium-sized enterprises, which will contribute as a major employment channel in a long run. The conflict between the expectation and job notion of graduates and the real need of the society has seriously impeded their employment.

### 4 Measures to Increase Market Demand for Graduates

In recent years, Chinese government has implemented various measures to relieve the pressure of graduate unemployment, such as launching the “Go West” project and reforming the residence registration system. However, the problem still exists and requests joint effort from the society, government, universities, organisations, graduates themselves as well. This paper offers a couple of solutions to the issue from demand expansion perspective.

First of all, Chinese government should attach more importance to employment problems (including graduates employment), and change its mindset from unilaterally pursuing economic growth to making overall plans for both economic growth and employment expansion. In extreme circumstances, it is necessary to sacrifice the pace of economic development in order to guarantee the employment rate. Under this guideline, various policies should be formulated to encourage and support those industries with heavy demand for labor force, and give top priority to those emerging high-tech industries. Capabilities of job creation of different industries should be taken as one consideration to determine the priority of government and social investment. For instance, credit policy should provide equal opportunity to labor-intensive industry, not only to capital-intensive industry, large state-owned enterprises or big projects in order to boost employment. Meanwhile, economic system reform should speed up to break the industry monopolization and extend market access, which allows graduates to be allocated into every industry, especially those traditionally highly monopolized departments.

Secondly, further improvement should be made on job market, by job information opening and employment channel diversification, in order to provide a sound platform for graduate employment. During the establishment and operation of the job market, the government should also play a role of referee, who uses polices and laws as a means, to create supportive employment environment and promote rational flow of human resources.

Another fundamental issue is the reform in higher education structure towards the integration of schooling system, annual or even long term education plan and demands of industries, in order to promote the match between graduates supply and labor demand. Specifically, organisations and relevant departments should be involved in the operation of tertiary institutions. For instance, universities could

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\(^5\) Yangcheng Evening Newspaper, March 19, 2010
negotiate with organisations about issues like curriculum setting and number of students to recruit, in the hope to reduce overstock and waste of talent. Accordingly, universities should be authorized with more autonomy, which enables themselves to make quick response to market demand, to improve the quality of education, and ultimately to increase graduate’s competency and employability. Finally, one practical solution to graduate employment crisis is to increase the self-employment rate. In some developed countries, self-employed graduates account for 20-30% of total number of graduates, whereas in China, the proportion is only 1%⁶. The employment situation would be moderated if there were a sharp raise in this ratio. It is the responsibility of university to improve the capability of graduates, so they are able to carve out their own. It is also the responsibility of government to create a social and policy environment which is supportive to self-employed graduates.

5 Conclusion

As a phenomenon appeared in the process of economic transition and severe overall social employment pressure, employment problem of graduates in China is different from educated unemployment in developed countries, neither is it the same as the domestic unemployment in general. It is a result of a multitude of factors which are interrelated and affected each other; therefore it represents itself in complicated forms. However, the root cause of graduate unemployment is the conflict between the schooling system in planned economy and market-oriented employment in market economy. Consequently, it cannot be eliminated in one day; rather it will take a long period of time. According to above analysis, we may conclude that a number of factors at macro and micro levels exert significant influence to market demand for graduates, including national macro industry policies, labor market mechanism, organization’s demand for and evaluation against graduates, structure and quality of higher education, as well as job intention and competency of graduates. Therefore, adjusting macro policies, improving job market mechanism, reforming higher education system and changing job expectation of graduates may help expand demand for graduates and eventually stimulate graduate employment.

References
