Chinese employment strategy report in 2005-2006: Research on the market-oriented system construction of employment and unemployment measurement

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Abstract: With the transition from planned economy to a market economy, published or official employment and unemployment data has become inconsistent with the reality of the Chinese labor market. The report analyzes and explains this phenomenon by a literature study, a historical review, in-depth interviews, as well as calculations and construction of econometric models. As the report points out, the country should assign importance to strategic measurement of the labor market, especially the employment and unemployment measurement systems. After ten years of exploration and research, the Chinese labor force survey system has developed a great deal. However, compared with the requirements of macro-economy research, the Chinese employment and unemployment measurement systems still need further improvement. The report systematically discusses Chinese employment and unemployment measurement system from theoretical analysis, historical review, systematic design, and empirical study. The report presents important theoretical viewpoints on employment and unemployment, and puts forward the framework and design for Chinese employment and unemployment systems in the future. This includes multiple dimensions, such as the establishment an employment survey, demand measurement of job vacancy, and flexible employment statistics. In the empirical study, the report measures the natural rate of unemployment in China, analyzes the reasons for the decline of the labor force participation rate in China, and evaluates the indicator of registered unemployment rates that the Chinese currently government uses. The report emphasizes that the establishment of Chinese employment and unemployment measurement systems should learn and absorb from experiences of developed market economies, while still considering the factors and effects of China being a developing country. We should increase the depth of our research into specific characteristics and rules regarding employment and unemployment measurement systems in developing countries.

Ⅰ Background

Since 1990's, some bewildering phenomena has come out in Chinese labor market. On the one hand, within the period of rapid economic growth, the number of employee should remain increasing in normal speaking. But the estimation, came from the traditional measurement system,

is decreasing year by year. In 2003, the number of employee estimated from urban household survey is 256.39 million, whereas the number of employee estimated from labor statistical report is 109.698 million. Obviously, the current system of employment measurement has already failed in reflecting the change of employee numbers in Chinese labor market.

On the other hand, in the middle and late period of 1990's, the state-owned companies carried out labor contract regulation, parts of workers faced the problem of laid-off and reemployment. The unemployment problem of the state-owned companies became acute. The government is confronted with greater pressure of employment. While according to the urban registered unemployment rate which we use all along, Chinese unemployment rate only ranges from 3.0% to 4.0%. This rate is far less than 5%, the natural unemployment rate under full employment situation in some countries. The unemployment rate published is often criticized for it is much lower than the real level of labor market.

Otherwise, due to the transitional characteristics of Chinese economy, in the labor market, people often use two categories to judge employment and unemployment, which are so-called hidden unemployment and hidden employment. According to the measurement of hidden unemployment, companies have a lot of surplus workers, so the unemployment rate should be very high. Thereout, Chinese unemployment rate is often considered the highest all over the world. But, the level of Chinese social security is so low that it is hard to image a person without any job can make a living. More accurately speaking, there is no one has income by working or other means in a family. The definition of 'working' conforms to the standard of ILO, 'one-hour criterion in reference period', and also conforms to the characteristics of flexible employment encouraged by Chinese government. Based on the definition, the unemployment level in Chinese labor market may be surprisingly low. Moreover, there are people neither employed nor unemployed in the labor population. Some prolong their education period, some quit from the labor market. The phenomenon arise the analysis and level judgment of non-labor.

What's the root of the above problems? We hold, the basic reason is the lack of a scientific measurement standard, methodology and system for employment and unemployment in China. Thereout, a lot of paradoxical descriptions and opinions emerge in all kinds of news and nonprofessional reports, which exert bad influence on macroeconomic research in economics academia and macroeconomic decision of the government, also leads to the public's wrong conception and recognition of employment and unemployment situation in Chinese labor market.

The measurement of employment and unemployment reflects the micro operation of labor market objectively, also concerns the accurate judgment over the macroeconomic situation. A comprehensive measurement system of employment and unemployment, can reflect the dynamics of labor market and the adjustment of labor market from various aspects, such as labor supply, demand, price, make-up, flow, source utilization, and so on. Employment measurement and statistics should be used as a weatherglass to monitor the situation of labor market and national economy development, and also should be the base of macro control and micro instruction nationwide. Chinese reform of marketization is far from realization. Influenced by the characteristics of labor relation, such as registered permanent residence, enterprise attachment and implicit labor contract, Chinese labor market has the distinctive features of transitional economy. The labor relation is much complex, and this situation will go on for a certain time. However, with the development of market economy, especially with the deep reform of labor market, the qualifications, needed for constructing the market-oriented modern measurement system of employment and unemployment, are developed preliminarily. We should research deep into the theory, methodology and indicator of employment and unemployment measurement, construct measure standard and measure system of employment and unemployment for the current labor market. These can greatly promote Chinese academia of labor economics to study or analyze the employment and unemployment of Chinese labor market. And also, the government can make macro decisions about employment and unemployment on a scientific basis, which will produce better policy effect.

Ⅱ Current research

ⅰ measurement of employment

Since 1980’s, international researches on employment measurement have focused on two aspects. One aspects is the comparative research on employment estimation. Employment data are widely used in assessing current economic conditions and short-run prospects for the economy, while employment data from different surveys are always diverging. Household survey(CPS) and establishment survey(CES) are the main sources of employment data. The employment data from the above two surveys are different but complementary. Household survey emphasizes particularly on the labor supply measurement, provides data by employment status,

demographic characteristics, social and economic characteristics. Household survey measures employment, also measures unemployment which is more important. Establishment survey is quite different with household survey. Establishment survey focuses on the measurement of labor demand, providing data on non-farm jobs, working time and income. Divergences between the above two measures arise from several sources, such as conceptual differences in the measures, differences in coverage, and differences in how the data are collected and estimates made. The two measures are complementary, as each attempts to represent different aspects of the employment situation（Glenn H. Miller, Jr. 1987）. They form a comprehensive review of supply and demand in labor market. Establishment survey provides data on jobs, and reflects the change of labor demand, so most economists favor the data from establishment survey. The regressions of measures of economic activity on measures of employment indicate, compared with household survey, the employment data from establishment survey is the better indicator of changes in economy activity over short periods（Glenn H. Miller, Jr. 1987）. Another aspect is the evaluation and improvement of employment measure project. The accuracy of data and bias of methodology are the important points in the evaluation. Experts carry out theoretic analysis and experimental test on the employment measure problems from several aspects, such as questionnaire design, sample selection, indicator design, data collection, bias control and adjustment, survey implementation and administration, data analysis and publication, etc（Robert L Stein,1980; Harvey R Hamel; John T Tucker,1985; Patricia M Getz，2000）.

The definition of employment used in our country is quite different with the international standard. There is no comparability in the statistical indicators with the same name. Employment population includes persons working in units (working for salary), and excludes persons working not in units (see Zhang Zhibin's report 'The retrospection and evaluation on Chinese labor force survey'). In recent years, domestic literatures have discussed several indicators, such as the number of employee and the number of Zhigong, total wage and rewards. However, these discussions are confined to the definition of current indicators in intension or in extension. The researches on international indicators in common use, such as working time, job gains and losses, are very scarce. Relatively, scholars pay more attention to labor statistical report. Most researches consider narrow coverage and old survey methods as the most prominent problem. The conclusion is that current labor statistical system has already fallen short of the need of current economy statistics. A relatively consentaneous viewpoint is improving current labor statistical

report, enlarging survey coverage and changing complete survey into sample survey(Zhang Qiang,2000; Wang Dongmei, 2004). There are also some researches on the application of sample survey(Xu Yao Yin,1994;Fei Yuanhang,2004). Accompanied with the deterioration of Chinese employment situation, some scholars take notice of the problems in employment statistics through the analysis of employment data. From the aspect of statistics, the inequality between total data and individual data is the problem of data coherence in various sources (Cai Fang,2004).

The research on informal employment is important gradually. The 17th ICLS(International Conference of Labour Statisticians) defined informal employment as the total number of informal jobs, whether carried out in formal sector enterprises, informal sector enterprises, or households, during a given reference period. ICLS relates the enterprise-based concept of employment in the informal sector in a coherent and consistent manner with a broader, job-based concept of informal employment, which makes them complementary according to different situation（ILO，2003）. An important content of international research on informal measurement is the measure method. The number and characteristics of the persons working in the informal sector, or in informal employment, and the conditions of their employment and work can be achieved by household survey. The costs of this method are relatively low. Many countries have made positive experiences in the use of labour force surveys as a source of data on employment in the informal sector（ILO，2000）. Indirect estimation is an effective method to estimate informal employment easily by using current statistical materials. Seeing the international experiences, some countries estimate the informal employment by combining data of industry, occupation and sector from population census and labor force survey. Many scholars discuss the above two methods from technical angle, and find different sample and sample selection methods have great influence on the final survey result.（Jeemol，2004）

In China, informal employment is often represented as flexible employment. Different researchers have different opinions. One opinion is that, flexible employment is also called informal employment, which means laborers work in informal sectors (Feng Lanrui, 2000). One opinion is that, flexible employment means employment flexible in working time, working place, income and so on (Yang Yansui, 2003). The dominant opinion is that, flexible employment is different with traditional employment types in mainstream from several aspects, such as working time, income, working place, social security and labor relation. The traditional employment types

are based on the industrialization and modern factory system. The main types of flexible employment can be classified into the following categories: non fulltime employment, temporarily employment, part-time employment, long-distance employment, independent employment, contract employment and family employment (Institute for labor studies of MOLSS, 2002).

Thus far, China hasn't set up a uniform survey of flexible employment. At present, the scale of flexible employment is estimated by some relative data. Because of different understanding, the estimations made by different scholars are various. Some people think, the percentage of urban flexible employment to total employment may reach 45.5%(Sun Shufen, 2004). Some people think, the current number of informal employees is about 72.85 million, and there is 80 percent of rural floating population engages in flexible employment, amounting to 72.5 million. The current number of flexible employment can be got by adding the above two numbers, which amounts to 150 million, accounting for 20 percent of total employment.(Zhang Libin,2005).

ii measurement of unemployment

The large scale of unemployment caused by economic crisis in 1930's promoted the development of unemployment measurement. ILO established the standards for judging unemployment which are guidelines to all the countries. Countries set up their unemployment measurements according to the ILO standards, which also have some differences. The first difference is lower age limit. The United States has chosen to use an age limit of 16 years, while Canada and the EU countries cover persons of 15 years and older. The second difference is about Armed Forces. The ILO recommends all members of Armed Forces should be considered as paid employees. The career military are not included in the labor force denominator in The United States and Canada (the military are calculated into total employment in the United States), while EU surveys include career military personnel residing in private households. The third difference is about unpaid family workers. According to the ILO, all unpaid family workers are to be counted as unemployment and included in the denominator regardless of the lowest working hour's limitation. Canada and the European Union follow the ILO definition. The United States only includes those unpaid family workers, who work 15 or more hours in the reference week. The forth difference is about students. The ILO definition says that the students who are available

for work and who are seeking a job are classified as unemployment. The United States and EU follow the ILO guidelines. However, Canada excludes students from labor force. Besides, as for the statistics of rural employment, in the United States, civilians who, during the survey week, did any work on their own farm, or who work 15 hours or more as unpaid workers on a farm operated by a member of the family ,are considered as employed person.

At present, the unemployment measurement in international communities includes the system of unemployment registration and the system of unemployment survey. As a kind of administrative records, the unemployment registration is very useful for the government to collect information about unemployment insurance. Because of the limited coverage of unemployment registration, the survey rate of unemployment becomes an indicator in common use in the international communities. As be related, household survey, the dormitory method of unemployment measurement, has been continually improved and perfected. The advanced unemployment measurement system should be ascribed to the United States. Beginning in 1940, the labor statistics of U.S. bureau of labor statistics are composed by CPS and other statistics. The Current Population Survey (CPS) is the most important unemployment measure method which is a monthly survey of about 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS). The CPS provides data on the labor force status (employed, unemployed, or not in the labor force) of the civilian non-institutional population aged 16 years and older and includes information on detailed demographic characteristics, such as gender, age, race, and ethnicity. The Bureau of Labor Statistics (BLS) release labor market information monthly、quarterly and annually. This system was redesigned in 1994.

The United State labor force statistical system was conducted on the basis of ILO definition. But it added some unemployment indicators according to the reality. Under this system, BLS analyses the number of unemployed population owning working experiences separately, defining it as a kind of labor force that have working experience which also includes the employed labor forces. Furthermore, the unemployment indicators can be classified into seven categories of different level. U-l Long-duration unemployment rate: Persons unemployed 13 weeks or longer, as a percent of the civilian labor force. U-2Job loser rate: Job losers, as a percent of the civilian labor force. U-3Adult unemployment rate: Unemployed persons aged 25 and older, as a percent of the civilian labor force aged 25 and older. U-4: Full-time unemployment rate: Unemployed seekers of full-time jobs, as a percent of the full-time labor force. U-5 Conventional

unemployment rate: Number of persons not working, but available for and seeking work, as a percent of the civilian labor force. Only persons on layoff and persons waiting to start a new job are not required to seek work in the past 4 weeks, a necessary condition for all others classified as unemployed. U-6 Rate encompassing half of the persons working part time for economic reasons: Number of seekers of full-time jobs, plus one-half of all seekers of part-time jobs, plus one-half of all persons working part time for economic reasons, as a percent of the civilian labor force, less one-half of the part-time labor force. U-7 Rate adding discouraged workers: U-6 plus discouraged workers in the numerator and denominator.（Sorrentino,1995）

China adopts the registered unemployment rate in public. According to incomplete statistics, most issues in the nearly 200 papers relating to unemployment published since 1994 focus on the urban registered unemployment rate. According to the international unemployment statistics standards (Resolution concerning Statistics of the Economically Active Population, Employment, unemployment and underemployment) passed in the 13th international labor statistic conference in 1982) and the measure methods of unemployment rate in the western developed countries of market economy, scholars criticize the urban registered unemployment statistics broadly. The reasonable doubts are as follows: the registration only refers to the local household population in city, which is unable to reflect the rural unemployment in the wide countryside; besides, it also can't reflect the unemployment situation of the peasants who have worked or done business in city; furthermore, it can't give us a reflection of the unemployment rate of the floating population in non-farm status who comes from other areas. The aging limitation is too strict. Using unemployment registration as the basic data resource, the unemployment definition is confined to the administrative activities. "Registration is meaningful for the government to aid employment and relieve unemployment alms, but it is impossible to reflect the macro unemployment situation"; the current unemployment dedicator only reflects the visible unemployment(public unemployment) ,but excludes the mass hidden unemployment ,so it can't reflect the real level of unemployment rate in our country. （Song Changqin, Xiong Zili,2001； Luo Jianzhang，2002）

The fundamental conclusion is that the survey unemployment rate should take place of the urban registered unemployment rate. The establishment of statistical dedicator system should be based on the international standards. The employment and unemployment sample survey system should be built according to the modes of the advanced mark-based countries such as the Unites States. To a certain extent, these researches has accelerated the experimental work related to the

labor force employment and unemployment sample survey carried out by the department of statistics and the labor administrative department. The experimental labor sample survey in the city one time or two times a year held by the national bureau of statistics since 1995 and the sample survey design of the national labor force employment and social security held by MOLSS in 2002, have made up the shortages and disadvantages in the statistics of registered unemployment rate to a certain degree. However, the data collected by sample survey haven't been formally admitted and released publicly so far and the deep research and open discussion on this issue are seldom. Nowadays, the registered unemployment rate is still the fundamental data and indicator for judging the unemployment situation in our country.

iii measurement of Labor demand (job vacancy)

As to employment or unemployment, labor demand measurement, namely job vacancy survey, is a valuable job. The interesting for job vacancy information is an accompaniment of human resource planning, for the goal of planning is to confirm employment opportunity and let laborer make good preparation. After the Second World War, U.S. employment service institution realized more on the important of job vacancy data for the effective labor market operation. The data collection of job vacancy has been development gradually since 1950s. In 1956, U.S Bureau of labor statistics（USDOL，Bureau of labor statistics） started feasibility studies on job vacancy data collection. In 1962, the Gordon Committee proposed U.S. government should research on the conception and definition of job vacancy data and discuss the problem of data collection and survey design. The proposal greatly promoted data collection of job vacancy in the whole country. In 1963, an experimental research plan of job vacancy was carried out in Chicago, which got four important findings such as the feasibility on collecting job vacancy data according to occupational category. In June 1964, the National Industrial Conference Board (now The Conference Board）,implemented an explorative study of job vacancy measurement on 'statistical definition suitable for the job vacancy utilization' and ' develop new experimental data to help solve these problems'.

At the same time, except for U.S., many developed countries embarked on this work in succession, such as Canada, Britain, Holand, Australia, Germany, Italy, Sweden and Japan. In order to make deep probe and research into the feature and characteristics of labor demand and

provide new ways to solve employment problems and formulate national labor policies, in 1965,the National Bureau of Economic Research held a large international conference on job vacancy. The conference analyzed the relative issues about the operation and theory of job vacancy measurement, and made a retrospection and evaluation on the relative researches before. After this conference, the data collection and research on job vacancy worldwide stepped into a normatively developing period. From 1969 to 1973, U.S. Bureau of Labor Statistics conducted Job Openings and Labor Turnover Survey. In 1980 and 1982, Employer opportunity Pilot Project was designed by NCRCE[1]and implemented by the company named Gallup. In 1991, BLS carried out another similar experimental project 'the Employee Turnover Job Openings'. Since May 1993, a job vacancy survey has been conducted by employment and training institution of Wisconsin-Milwaukee college every two years. For the convenience of measuring labor demand, since 1950's U.S. has attempted to use help-wanted index in stead of job vacancy rate.

From 1971 to 1978, the Canada bureau of labor statistics implemented a nationwide Canadian Job Vacancy Survey. The Australian Bureau of Labor Statistics has carried out the Quarterly Survey of Job Vacancies and Overtime since 1983. UK carried out UK's National Survey of Engagements and Vacancies in 1997. Sweden started national job vacancy project in 1999. Through several decades of exploration and practice by many countries and institutions, the survey and research of job vacancy data still have a lot of issues needed to study further. The main issue is the reliability and validity of survey by questionnaire. Nowadays, the definition and data of job vacancy only exert a little influence on business companies, government and employers. When these data cannot got improvement and enter an organization's internal management procedure, the vitality of questionnaire is a matter. Occupation is rooted in a specific technology and labor market, and the companies' recruiting procedure is diversified and random. These place great obstacles on job vacancy measurement. Companies are still short of the complete statistical records of all the employed, and also short of the unified and distinct definition of job vacancy. The job vacancy data came from employment service institution are sure of value, but their use should be limited, especially these data are used to represent the total labor demand of labor market. A job vacancy can only be filled by a person outside the organization. This definition is right only for a person firstly entering internal labor market. As to a person fired or planning to leave, the definition is not suitable, the same to a casual laborer or a

[1] 国家职业教育研究中心。

permanent laborer. A lot of regulations and conventions control the labor allocation in internal labor market and the relation between internal market and external labor market. On the inflow point and outflow point in the internal labor market and external labor market, the research on job vacancy, the evaluation of recruiting standard and the normalization of training program play a decisive role. In the self-employed company and small-scale company, the description of job vacancy and poor situation of job vacancy records, bring forward austere challenges for the persons who pay attention to the statistic indicator design. Since occupation list breaks the boundary of industries, there is no high comparability among jobs. The measurement of job vacancy requires the scientificity and normalization of job classification. The above all are the problems within the further study in international communities.

The job vacancy research in our country is quite poor. The labor force survey system was set up by national bureau of statistics in 1996, but the demand measurement of employer hasn't received enough attention. Beijing bureau of statistics carried out the survey on demand and decrease of labor in government, enterprise and unit in 1999 and 2003, but regrettably, this project cannot go on. Training and employment department of MOLSS, information centre of MOLSS and Chinese employment training instruction center are publishing the analysis report on national labor market situation of supply and demand from 2001. Beijing bureau of labor and social security implemented the survey on demand and decrease of labor government ,enterprise and unit in Beijing in 2005. The work is just at the beginning, and at the explorative stage. There are few research analysis reports on reliability and validity of measurement.

iv Measurement of natural unemployment rate

The measurement of NAIRU is another important field of employment and unemployment research in the contemporary era. So far, most of OECD countries have constructed the econometric framework for measuring NAIRU. They measured the value of NAIRU in the past several decades, and also made comparison in many countries. Ever since the studies by Friedman(1968) and Phelps(1968), a large amount of research have attempted to discuss the existence of the natural rate and to identify the determinations of natural rate both theoretically and empirically. Recently many new researches are dedicated to testing the hypothesis and also giving a corresponding measure. Johnson and Layard（1986）provide an early measure. More

researches up to data come from Layard，Nickell and Jackman（1991），Phelps（1994），Cross（1995a），Fabiani and Mestre（2000，2001）.

China’s macro economy has been in the period of reform with rapid speed, the economic structure and the industrial structure change intensively, which lead to the continue adjustment in employment structure and the ceaseless climb of unemployment rate. However, at present we cannot clearly tell the precise value of the percent of natural unemployment and the percent of cyclic unemployment in the unemployment rate which climbs ceaselessly. Because of the incompleteness of the price index and the unemployment rate (In fact, it is very difficult to reflect the real unemployment level of China by the official urban registered unemployment rate. (Zhang Juwei, 2003)). In addition, because of too little observed value (There is only yearly data on the labor market correlative index, lack of more detailed data such as quarterly number etc.), the traditional econometric model couldn’t be applied to make a relatively precise estimate of NAIRU in China.

Owning to the unavailability to get the valid observed data of unemployment, domestic scholars consider the excursion produced between the NAIRU and the observed unemployment rate as non-observed variable (state variable), estimated by a state space model which is on the basis of Phillips curve and Okun's law, and analyze the “rate of unemployment excursion” under this situation. They believe that the NAIRU and registered unemployment rate curve are very close. The latter is higher than the former except for some special years (1989, 1993 and 1995), in these years the condition is opposite. Furthermore, the NAIRU trends to increase (Shi zhuxian and Wu zheng, 2004). In order to solve the problem of data shortage, some scholars have estimated the NAIRU by analyzing the existing unemployment data. Taking advantage of the estimated unemployment data, they evaluate the NAIRU according to the invariable supposition. Adopting the method created by Stager, they evaluate the NAIRU of the breakpoint within the china’ macroeconomic trends, based on the assumption that the unemployment rate is invariable and the data is available, and they pointed that China has a comparative higher NAIRU which will be increasing continuously. Besides, they also admit that the NAIRU can’t be estimated more accurately and the confidence interval is large because of the lack of data (Cai fang and Wang meiyan, 2004). There are also some people who have made a try earlier. They chose The United States as the comparative object, made use of “international comparable method ”and calculated the NAIRU approximately. Preliminary it’s said that the unemployment rate in china is about

8.0%.(Mu xi and Xiao honghua, 2000) However, this estimate is obviously too “rough”.

Summary

As mentioned above, with the development of market economy, scientific design of measure indicator and measure system of employment and unemployment in developed countries improved to be perfect. There are abundant of researches in employment and unemployment, also in the measure of job vacancy and natural unemployment rate. With the development of market economy, new requirements are put forward for the employment and unemployment measurement in labor market of China. The labor statistics system in planning system has already fallen behind the change of situation. Although a series of issues arisen from traditional employment and unemployment measures, such as analysis and criticism on current indicator, method and system, on the whole, the researches on new employment indicator and system design are dispersed. The researches are unsystematic and shortsighted. And researches on reliability and validity of different measurements are scarce. The research on job vacancy and natural unemployment rate is nearly in blank. Also, there is no clear research thought and plan on how to construct Chinese employment and unemployment measure system market-oriented.

Ⅲ Research method

The main research methods used in this report include literature analysis, in-depth interview and econometric analysis.

ⅰ Literature analysis

We collect and analyze various literature relevant to labor statistics, which can be categorized into four types.

(1) International organization publications on labor statistics. This type of literature covers documents, studies and reports published by ILO, OECD and other international organizations. The significant literature includes: ‘Resolution concerning Statistics of the Economically Active Population, Employment, unemployment and underemployment’, ‘Key Indicators of the Labor Market’, ‘OECD Employment Outlook’, ‘OECD FACTBOOK 2005’, etc.

(2) Chinese government documents and reports on labor statistics. This type of literature

covers documents, studies and survey reports published by Chinese State Council, Ministry of Labor and Social Security and some government research institutes. The significant literature includes: 'Decision to Establish Labor Force Survey System', 'Report on basic condition sample survey of Laid-off, Unemployment, Retirement Workers in 10 Cities', 'Labor and Social Security Statistics Report 2001~2004', 'Report on the problem of Chinese Population and Labort 2000~2004', etc.

(3) Year books and census data. This type of literature covers year books and census data. The significant literature includes: 'China Labor and Social Security Year Book 1995~2004', 'China Labor Statistics Year Book 1995~2004', and other documents and data concerning national census in 1990 and 2000.

(4) Academic paper on labor statistics. This type of literature covers academic papers on labor statistics. The data source includes National Library, RUC Library, CNKI, ProQuest Academic Research Library, Academic Search Premier, etc. We also collect academic papers and working papers from the websites of ILO, NBER, USDOL(Bureau of labor statistics), WB, ECB(European Central Bank), etc..

ii **Interview**

In order to get full information about measure design, survey implementation and data analysis of the employment statistics based on establishment in China, and also to know the flexible employment survey in China, three types of interviewees are interviewed.

(1) Interview with Bureau of Statistics. By this kind of interview, we deeply probe into questions in the macro system of employment statistics based on establishment, clarify the purpose of the indicators and the utility of the data. We also discuss the labor force survey relative to the flexible employment and the statistics reform trends in future.

(2) Interview with enterprises. We totally interviewed more than ten state owned and non-state owned companies covering the industries of Hi-tech, construction, manufacture, food, goods trading and modern service. By this kind of interviews, we know about the applicability of the existing statistics indicators, and absorb the suggestions on employment statistics contributed by the interviewed companies.

(3) Interview with basic labor and security organizations. 15 graduates visited 25 sub-district offices, residents' committees and other basic labor and security organizations located in 10 provinces. They interview the functionaries in charge of unemployment register. These interviews

provide much information of flexible employment statistics and registered unemployment rate.

iii Econometric analysis

Using the census data in 1990 and 2000, we calculate the labor participation rates of different age groups in China. it is showed that the participation rate in China is much high by comparing with the data of other countries.

Based on invariable parameter supposition, we employ a state space model and Kalman filter to measure the value of NAIRU in China. In this study, we collect and analyze time series data, including the unemployment rate, CPI growth rate, the growth rate of GDP deflator index and the growth rate of investment in fixed assets. We choose six different models, and use econometric analysis software Eviews5.0 to estimate NAIRU which varies over time from 1992 to 2004.

Ⅳ Research purpose

The research purpose of this report focuses on the settlement of five questions as follows:

Firstly, what is future basic framework of the employment and unemployment measurement standards, methods and system-designing in China like?

Secondly, what are the main problems lying in corporate employment measurement in China? From what dimensions should corporate employment be measured? And what steps shall be taken to promote the corporate employment measurement reform?

Thirdly, what and how to learn from the international experience of informal employment measurement to establish the flexible employment measurement system in China?

Fourthly, what to learn from the theories and practices of job-vacancy data collection and survey in developed countries to establish the employment measurement system in China?

Finally, from empirical point of view, what is the actual level of natural unemployment rate in China? How does the labor force participation rate in China tend to change and what are the reasons for such tendencies? And what do the analyses and judgments cited above mean to the labor market employment and unemployment measurement in China?

Ⅴ Conclusions

i The latest construction of the employment and unemployment measuring system

should be designed in several aspects.

The first is that we can start measuring from aspects followed: labor supply, labor demand and the matching of the both.

The measurement from supply aspect should include: the forecast of active population in macro-economy, the rate of labor participation, the investigation of micro-labor force's individual household (1% labor investigation being carried out until now) and construction of Panal Data Database, etc.

The measurement from demand aspect should include: the increase of macro-economy, the development of technology, the international business and the influence and forecast of demand by variable transformation, such as investment or salary varation; the investigation of micro-units employment and the measurement of position vacancy in enterprises, etc.

The measurement from and the agency and matching part should include: demand index of labor market and the investigation of position supply and unemployment registration in agencies, etc.

Additionally, we should create some indexes for researching and measuring, such as for measuring the rate of natural unemployment.

The second is that we can start measuring from aspects such as: employment, unemployment and assorting non-labor force.

The measurement of employment should include: employment investigation in Danwei of sufficient employment and insufficient employment, regular employment and flexible employment measured from the investigation of different aged (including youth employment,etc) personal supply.

The measurement of unemployment should include: the unemployment, the rate of unemployment registered, the rate of natural unemployment measured from the investigation of personal supply.

The measurement of Non-labor force should include: behavior of unwilling to work or not searching for jobs measured in the investigation from families and population who have lost confidence.

The construction of framework of the above showed as followed table 1.

Table 1 the framework of measuring employment and unemployment

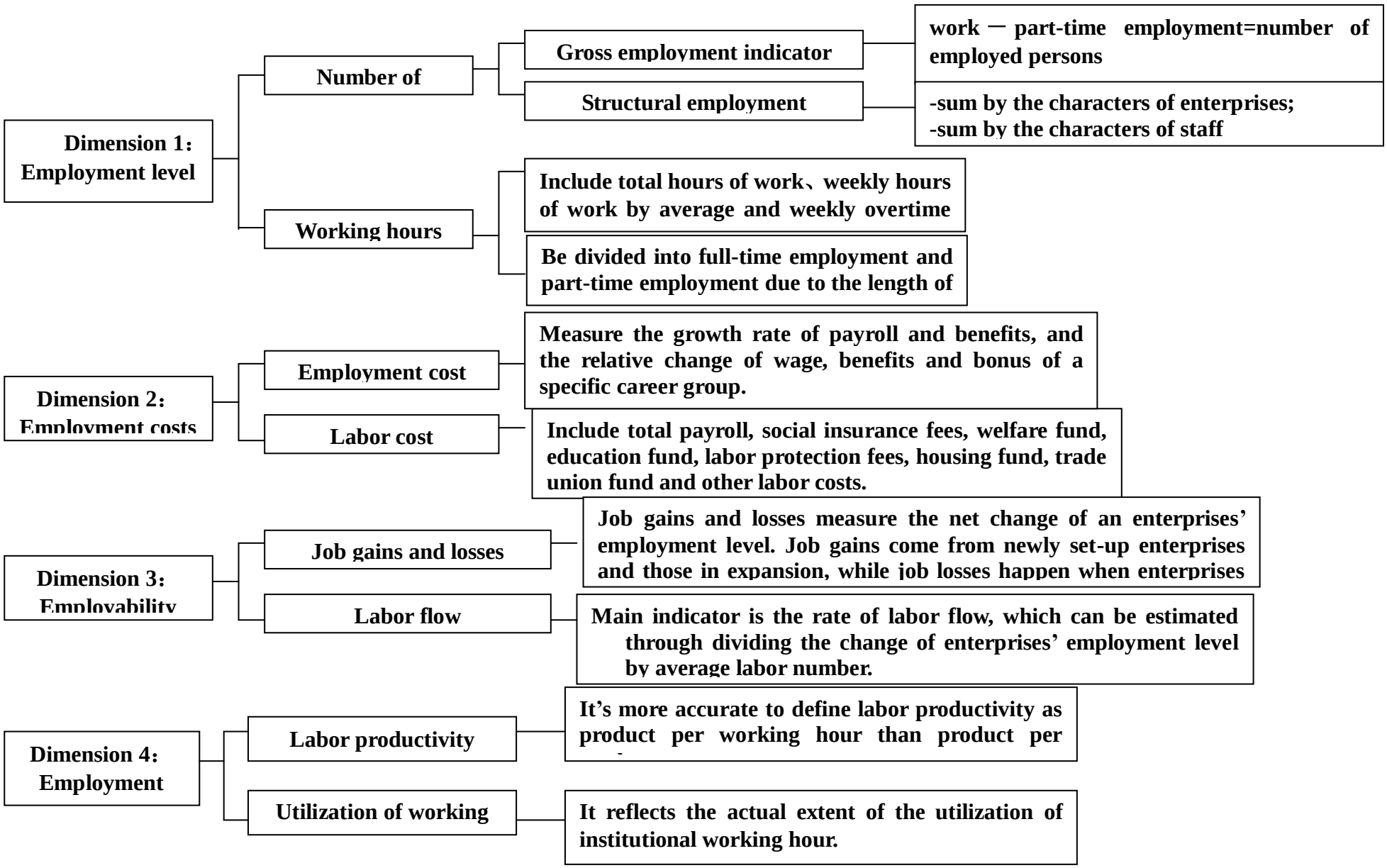
	employment	unemployment	non-labor force	Labor force demand	evaluation
individuals	adequate employment; inadequate employment	unemployment	population out of the labor force market		
	formal employment; flexible employment				
enterprises	Statistics report forms of employment			reports of position vacancy	
agency		investigation of unemployment registration			
researcher	forecast of macro-labor force	rate of natural unemployment	research to the rate of labor participation		

ii **according to the three problems existed in enterprise employment survey, we consider to construct a Chinese Employment Surveying System for Enterprise in four dimensions: employment level, employment cost, employability and employment efficiency. And it should be reformed in two phases.**

Investigations reveal that, while Chinese economic form is experiencing a diversified development, the enterprise employment survey becomes an urgent and real problem. At present, three profound problems exist. Firstly, the surveying and management systems are decentralized without a unified standard, which result in data distortion. Secondly, the surveying method is too simple to have enough flexibility and effectiveness, and the sample frame is lack of maintenance. Thirdly, the surveying indicators are miscellaneous and inadequate with leakage as well.

According to the actual conditions of Chinese enterprises, we consider to construct a Chinese Employment Surveying System for Enterprise in four dimensions, which include employment level, employment cost, employability and employment efficiency. Further more, we suggest reconstructing the system in two phases.

The four surveying dimensions are as follows:


Dimension 1：
Employment level
Number of
Gross employment indicator
work － part-time employment=number of employed persons
Structural employment
-sum by the characters of enterprises;
-sum by the characters of staff
Working hours
Include total hours of work、weekly hours of work by average and weekly overtime
Be divided into full-time employment and part-time employment due to the length of
Dimension 2：
Employment costs
Employment cost
Measure the growth rate of payroll and benefits, and the relative change of wage, benefits and bonus of a specific career group.
Labor cost
Include total payroll, social insurance fees, welfare fund, education fund, labor protection fees, housing fund, trade union fund and other labor costs.
Dimension 3：
Employability
Job gains and losses
Job gains and losses measure the net change of an enterprises' employment level. Job gains come from newly set-up enterprises and those in expansion, while job losses happen when enterprises
Labor flow
Main indicator is the rate of labor flow, which can be estimated through dividing the change of enterprises' employment level by average labor number.
Dimension 4：
Employment
Labor productivity
It's more accurate to define labor productivity as product per working hour than product per
Utilization of working
It reflects the actual extent of the utilization of institutional working hour.

The two phases are designed as follows:

In the first phase, the statistic and surveying systems for enterprise should be established. First of all, we should uniform the statistic system for enterprise, enlarge the coverage of labor statistic report forms, define private individuals and township enterprises as targets of the labor statistics explicitly, and bring about an organic system for enterprise employment statistics. Secondly, integrate the methods of overall survey and sampling survey. Then, improve survey indicators continuously. For example, the survey of working hours is absent in Chinese Employment Surveying System for Enterprise up till now. The fourth task is to enhance the maintenance of sample frame. The fifth, design monthly employment survey. And the sixth task is to promote the establishment and perfect of the position classification system. Position employment survey is a blind spot abroad. At present, there hasn't a scientific position classification system and any position management platform for enterprises, which hinders the position employment survey. In the first phase, associated government departments should design and enforce a scientific system for position classification, and require enterprises to set up position management platform according to the standard, so as to ensure a totally transition from rank management to position management. In this stage, associated government departments may require enterprises to count position employment and release the information timely, and they can do spot check at regular intervals, to correct statistical errors and promote the construction of enterprise's position system.

It's unrealistic to cover all the statistical and surveying indicators solely by the labor statistic report. Because overloaded tasks would increase the probable error and harm the validity of sample data. Thus, in the second phase, we can set up a labor flow survey which can be combined with position vacancy survey. When the enterprise position system is basically set up, we can enforce position employment survey, of which the main indicators are employment figure and salary. As the number of part-time employment is increasing, it's considerable to distinguish full-time

employment with part-time employment.

After the above two stages, a diversified employment survey system for enterprises would be formed and is expected to reflect an overall employment condition of enterprises, which includes labor statistic report, monthly employment survey, position employment survey and labor flow survey.

iii It is suggested to launch the in-depth research on the characteristics of the unemployment statistical evaluation in developing countries, so as to promote the flexible employment and the statistical evaluation over insufficiency employment.

Although the ultimate objective of China is to set up the market economy, yet currently it is still a developing country whose labor market has some substantial features that couldn't be found in the developed economies. Therefore, the key point is to fortify research on the characteristics of the unemployment evaluation systems in developing countries, such as the statistical evaluation over the flexible employment. With the continuous increase of flexible employment in China, it is still absent in the authoritative statistical evaluation system despite of the growing keen attention to its statistical evaluation. On the one hand, there is no conclusive consensus over the statistical conception and definition of flexible employment between the academia and the statistical bureau, which finally leads to the great disputes over the current evaluation results. On the other hand, the information of the flexible employment comes from several present surveys including the periodical reports on corporate employment, the sample census as well as the administrative documents of the governments. Not only do the data from the above three sources overlap each other, but also the aggregate data on flexible employment could not be reached through a simple summation of the three. Hence the realistic situation of the flexible employment in China couldn't be pictured only based on the above information. Meanwhile, the flexible employment in China covers a much wider range compared the formal employment, in that it takes in both the formal and the flexible employment. In light of this, the international statistical definition and measures on

the informal employment are not readily applicable in China; and for this reason, we suggest a statistical evaluation mechanism of flexible employment based on the clear-cut definitions of flexible employment and labor force surveys, which actually is to incorporate the flexible employment evaluation into the labor force surveys through indicators on the legislative supervision, the employee status, the work stability, the working locations, the industrial relations, the labor protection and so on. To improve the data quality in these surveys, we could motivates the surveyed through benefit packages including social security, professional trainings and the labor protections for those flexible employees.

In our view, similar to many other developing countries, the capital problem in China's labor market is the "insufficiency employment". To strengthen studies on insufficiency employment is the crux in the research on statistical evaluation over unemployment in China. The statistical evaluation over the insufficiency employment as well as the excessive employment should be introduced, without interrupting the existing ILO practice of one-hour reference standard, into our unemployment evaluation system and the results should be announced timely. This is of crucial importance in the implementation of the strategy to improve the employment quality in China.

iv **In several years of future, increasing employment will be china government's main stratagemical task.**

It has great significance to conduct an study on labor demand, i.e. job vacancy. Researches show the job vacancy data is one usable key indicator that reflects economic situation change, which is sensitive to economic regression as a leading indicator, but becomes lagging when economic situation function well. Whatever total job vacancy data or local job vacancy data or industry job vacancy data or profession job vacancy data, they are an indicator available for reflecting labor demand change. It will be more efficient to predict the labor demand trend while those data above are applied with the unemployment statistical data from employment agency. Combining the job vacancy data from different areas and different professions and those with other characteristic with unemployment statistical data helps us learn more about

structural and frictional unemployment job and take correct labor measures. Job vacancy statistical data is also useful to guide train demand, especially to those unemployed men who receive short-term train. We should establish and better the labor demand survey system, conduct more study on labor demand and bring forward normal and scientific demand measurement indicator system, establish and open labor demand data-base to provide the stipulation of relevant policy with information support.

- **Three positive research and some concerned conclusion of the research.**

First, from the 1990's, NAIRU in China is continuously rising.

Form research, we find natural rate of China is continuously rising from the 1990's. In order to lowering it, further discussion on the factors and mechanism of NAIRU in China, unceasing attention to measurement and analysis of it are needed.

As one of the important parts of business cycle theories, natural unemployment rate is a valuable analytical concept. It simplifies the discussions and choices of the macroeconomic policy. But, the conception of nature rate is not widely used in China. The main reason of it is that the real numerical value of it is not known. After reviewing considerable of estimation approaches abroad, based on invariable parameter supposition, this article constructs a state space model composed of a process that describes NAIRU's variations over time and of a Phillips equation. The model assumes that, NAIRU is a random walk variable; inflation rate is determined by three factors: adaptive expectations and inertia, excess demand or shortage – estimated by the gap between the actual unemployment rate and the NAIRU – and short-term supply shock variables. This article estimates the NAIRU for two different measures of inflation and three different supply shock variables, therefore six different models; then the Kalman filter method is applied to estimate NAIRU which could varies over time from 1992 to 2004. The results of empirical research show that NAIRU in China are continuously rising from the 1990's and arrived at its top in 2002. Though the tendency of rising is obvious, after 2000,the natural rates fluctuated from 4.8% to 5.6%, comparatively stable. Compared with main market economy countries

at the same period, this lever is not high. But the proportion of natural unemployment in overall unemployment is high. By reviewing the main transformation of labor market of China in recent decade, we consider that the main causes are due to the acceleration of the structure transformation and the serious problem of youth employment. So, keeping on researching the measurement of natural rates, especially analyzing factors of effect and mechanism of natural rate will have importance or significance to employment policy.

Second, because of the transformation of planned economy to market economy, labor force participation continuously decline.

labor force participation is a basic index to measure the labor supply behavior in labor market, but it is neglected in labor statistics in China. By using the data of the fourth and fifth census and carefully analyzing the labor force participation of different ages and different genders, we can conclude that the main reason of the decline of labor force participation of different groups is the transformation of planned economy to market economy. Various allocation forms co-exist in reality, making China society begin to produce the stratum which can not depend on labors. The increasing of wage and income can come into being income effect, which makes parts of laborers reduce their working time. The increasing of income makes some families ask their female member retreat from the labor market, which results the female labor participation descends more than the male labor participation.

Under market system, while laborers take back the right of employment decision, they enjoy the right of self-government and at the same time bear the cost of searching work. This may lead to “losing confidence effect”, that is under the high unemployment rate, part of people give up endeavor for the difficulty of searching jobs and retreat from labor market, becoming part of “not in labor force”.

Considering that China is industrializing, the population of farmers is gradually decreasing, towns and citizens are gradually increasing and the problems of ages in China society, the participant rate of Chinese labors has the tendency of falling down. So we suggest, on this background, the Chinese government should begin to study the

problem of adjustment to employment polices, on the purpose of lessening the disadvantageous effect of the decrease of labor anticipant rate on the economy development. Meanwhile, it's necessary to adjust and improve labor measurement methods, lay essential focus on labor anticipant rate index to supervise the supply and demand of labors on time.

Besides placing the importance on unemployment and employment index, we should also pay attention to the measurement specification, which doesn't belong to the labor population, especially the measurement of the groups who has lost their confidence.

Third, urban register unemployment rate is not suitable to be the micro estimation index continuously reflecting the elementary situation of labor supply and demand in China.

The study shows that urban register unemployment rate exists such problems as the range of population is narrow, the limitation of age is not accordant with the international regular rules, the ways to register can not reveal the true situation of unemployment, the scope of unemployment and employment is not the same one, the index system is too simple. By investigating and analyzing the regulation of unemployment register and the procedure of the real register operation, especially by talking with the administration staff in the front of 25 basic register unemployment bureaus in 13 cities, it is found that confusion of many work details and data errors during collecting the data of unemployment register. The features and the deficient of register unemployment system are sources of the confusion and errors. Therefore, the report assumes that urban register unemployment rate is not suitable to be the micro estimation index continuously reflecting the elementary situation of labor supply and demand in China for it has lost its effort. It is also not suitable to be the regulation index, control index and appraisal index related to micro-economy, which all play the important roles in middle and long–term social economy development scheme in everywhere and whole country. Reforming urban register unemployment rate, and transforming it into the simple drawing unemployment insurance index, letting it play

the genuine role of managing register information and serve for unemployment insurance and employment improving.

vi Several questions lying in employment and unemployment measurement in China require further consideration and research.

Establishing labor force survey system, China has begun developing its employment and unemployment measurement in a more marketizing, standardizing and internationalizing way. But the current employment and unemployment measurement system still lags behind the realistic needs of economical activities. The data in use is still those collected by organization employment survey conducted for planned-economy. Such data system underestimates the employment level in China and cannot mirror the actual status of employment. All in all, as the most important platform for national macro-economy policy analyses, the labor market measurement and statistic system in China is far from well built.

We are still using such indicator as registration unemployment rate of towns, which was designed to facilitate unemployment insurance service. It can neither reflect the actual unemployment level in China, nor be employed in international comparisons. China began to conduct unemployment survey for unemployment rate measurement from 1996; however, the results are never publicized, provoking incorrect guesses and imaginations of employment and unemployment situations of the country. Although the national labor force survey system with a one-percent sampling rate started in November 2005, it does not yet meet the requirement of building up a modern and scientific labor market measurement system, let along competing with systems of developed countries in depth and width.[2]

In the final place, we believe that, as economy structure changes and the whole society develops, several questions lying in practices and theories of employment and unemployment measurement require further consideration and research: Should most

[2] According to experience of the US system, the survey needs to be redone in a month to verify response consistence. Furthermore, from 1994 CPS has been focused more on such details as questions. For example, respondents are not asked directly whether they are employed or not, but their employment status are defined by several related questions. CPS has also introduced sample selection and sample rotation methods, measurement of marginal people, extensive training programs for representatives and interviewers, as well as modern equipment.

housework be put into the range of societal labor work since there is a tendency of housework-socialization? Shouldn't students in campus be enumerated in employed labor force since some of them do earn from working, thus creating value and use-value which is counted the GDP? If students in campus lose their jobs, should they be differentiated from other unemployed population from the labor market point of view since like the ordinary unemployed, they do exert influence on the labor market demand and supply? In statistic definition, the concept ZHIGONG in China is almost the same as the internationally used EMPLOYEE, but the current statistic caliber of ZHIGONG is much smaller than that matching its definition. Practically, it is already impossible to obtain data from all wage-earners through comprehensive statistics, so shouldn't the comprehensive one be taken place by sampling survey? Shouldn't ZHIGONG statistics turn into EMPLOYEE statistics or STAFF statistics since the concept ZHIGONG does not gear to the changed labor relations in China? Shouldn't interviewees of labor force survey be broaden to town residents (or current population), say, including migrant workers working in towns, so that the survey result will reflect the unemployment situation of the whole society? Should armed forces members enumerated in employment range or not? Etc.

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Abstract

1. Measurement of Labor Market and its Economic Implications

Yang weiguo

Abstract: Virtually any of the statistical activities should serve for some specific objectives. However, focuses on the measurement of the labor market have long been concentrated on the definitions of concepts and practical approaches for application; in contrast, little has been discussed about the purposes and importance of the measurement itself. While in this paper we interpret the economic implications of the indicators for the labor market measurement, take the set of the structural indicators selected by the European Union in 2000 as an example to illustrate the close relationship between these indicators and the national economic strategic goals, and then proceeds to explain the distinctive value of the Key Indicators of the Labor Market (KILM) designed by the International Labor Organization in the context of globalization, aiming to reveal the significance of the labor market measuring and provide the indispensable foundation for developing a comprehensive theory of the labor market.

Key words: Measurement of labor market , Employment, Unemployment, Economic implications.

2. Employment and Unemployment Measurement in China

Song changqing

Abstract: Based on summary of China's employment and unemployment measurement, the author analyzes some controversial issues currently, such as, the measurement of social labor, the measurement of unregistered employment and hidden unemployment, etc.

The author points out, much of the household work actually creates value, thus it has the characteristic of social labor and be count into social labor. Furthermore, the trend of household work socialization is emerging. From the point of measurement,

the people who undertakes household work more than one hour a day for other family members should be considered as social labor, so do the couples who bring up children together. The students taking payable work create value, whose production had been count into GDP, should be considered as employed. The student searching a job will influence the current supply of the labor market, the effect is the same as common unemployed. Therefore, in the point of labor market, there is no difference between the students seeking job and the unemployment labor. Serviceman should is a special group of people who create value, because they protect the natural resource of one country from being used by other countries. Chinese definition of workers and staff in statistics basically ought to be the same as international definition of employee. However, at present the statistical actual caliber is much more narrow compared to the definition. From the current situation, it is impossible to obtain the data of all wage earners by general survey, it should depend on feasible sample survey. We can change the workers and staff statistics into the employee statistics.

The definition of unemployment in China is basically the same with ILO. The most controversial issue is whether unemployment survey should include rural labor or not. Theoretically, Chinese farmers have basic means of production----land: As long as they engage in productive work, they can obtain payment or revenue, so there is no unemployment in rural area. Farmers can search work in down town area if they have no land. On the condition that labor survey object is definite as the people living in down town, farmers who search work in town are included. The above narration reflects unemployment of the whole social labor force. Unregistered employment and recessive unemployment is ubiquitous phenomenon in our country, but they can't be measured, and we should distinguish between unregistered unemployment and unemployment.

Keywords: Employment and Unemployment Measurement Theoretically reason

3. The review of china's labor survey

Zhang zhibin

Abstract: With the establishment of china's market economy system, the primary employment statistics system based on unit survey and the unemployment statistics system based on registration can't reflect the real situation in China' labor market, so China established labor survey system in 1996. Under the principal to meet international standard and Chinese situation, China accepted ILO's definitions of employment and unemployment; took the household survey method(like CPS), adopted the statistics based on permanent population rather than on registered population due to china's register administration, and design two statistics scopes, nation wide and city wide, according to china's dualistic society characters. Sample design, indicator setting, survey implementation and data processing of the labor survey have being improved and perfected during the recent decades. At present, the State Department of China has decided to build the labor survey system formally in 2005. The establishment of labor survey system is significant to China's labor statistic work, which means that China's labor statistics system begins to meet international standard completely so that the statistic data become comparable. What is the most important is that China's labor statistic data can reflect the real situation of the labor market completely and correctly, which will provide meaningful and exact information for economic analysis and policy making.

Keywords: China Labor survey Review

4. Chinese system of employment measurement in establishment: Current situation, problems and reconstructing suggestion

Liu caifeng

Abstract: With the diversification of economy type, Chinese employment measurement becomes an urgent issue in reality. The report sums up three prominent of Chinese employment measurement using the research methodologies of literature and interview. The first problem is the measurement system and management system. Chinese measurement system of establishment employment is composed by three parts: labor statistics report forms, private and individual business register statistics

and business statistics in villages and towns. However, the above three parts are different in measurement criterion. They cannot be calculated directly, and also cannot make an accurate compare. Chinese management system for establishment employment is a certain loose, which leads to the distortion of statistics. The second problem is the measurement methods. There are two main types of survey method: complete survey and administrative register, which seem insufficient. The survey in quarter or year is inadequate of timeliness, and cannot reveal the changes of employment timely. Without the sample maintenance such as the establishment register system in foreign countries, the sample management cannot track the changes of establishment. The third problem is the measurement index. Chinese measurement index of establishment employment seems a little complex. And compared with foreign countries, the deficiency of the index still exists. Based on the problems, the report makes further discussion on system reconstruction, measurement reliability and measurement bottle-neck. Combined with the employment situation in Chins, the report proposes China should construct the employment measurement index from four respects: employment level, employment cost, employment dynamics and employment effectiveness. According to Chinese current situation, the report makes suggestions on the reconstruction of establishment employment measurement system through two stages.

Key words: Measurement index Measurement system Reconstruction

5. Building a survey system of flexible employment in the whole China

Niu ling

Abstract: With the development of flexible employment in China, Measuring flexible employment has become more and more important. But the statistic of flexible has not been included in the statistic system in China. On one hand, because of its complexity, flexible employment has not been defined statistically by the scholars and the department of statistic of government, which make the assess result

different from the fact. On the other hand, the data of the flexible employment originates several different surveys, including enterprise survey, labor survey and the record of government. These data not only overlap, but also can't reflect the whole situation when they are added up. At the same time, there are problems with the reliability of the data. Compared with informal employment, flexible employment comprises more employment forms. So we can't use the definition and statistic method to measuring flexible employment directly. Therefore, we can build a system of employment based on labor survey in China. The flexible employment survey can be a part of labor with some index including law supervision, employee situation, workplace, labor relation and labor protection. Through a series of policy for flexible employment, the reliability of the data can be raised.

Key words: Flexible employment Measurement

6. The theory and practices of job vacancy data collection and survey in developed country.

Tang kuang

Abstract: The thesis, whose theme bases on the statistics and analysis on the data of job vacancies in America, compares job vacancy data collection and research among main countries according to their national policies and practices, as well as gives a brief introduction of the labor demand statistics in China. Divided by the NBER Seminar in 1965, there are two stages of the job vacancy data collection and research in the world-wide area. The first stage is from the 1930s to 1966, and it is featured by the exploration of the job vacancy data collection. The second one is the stage for the norms and theories of data collection methods, in which various has implemented cosmically the survey of their job vacancy data.

Through the comparison, we have found that the job vacancies data were an important index as well as an index which can be employed well. The job vacancies

data can be used to reflect At the same time, the combination of the job vacancies data and the statistics data of unemployment may help us grasp and analyze both the structural unemployment and tribology unemployment, and thus help us to establish right labor policies. the labor demand and to predict the trend of the labor demand. Moreover, the job vacancies statistics data can be used to guide the training demand. Although many a country have used the data as vocational guidance, the pertinence and practicability of such guidance is not strong.

Keywords: Job vacancy Labor survey Labor market

7. The measurement，movement and meanings of the labor force participation rates in the period of transition of China's economic

Li lilin

Abstract: As a basic index in the labor market, it is not available for the data of the labor force participation rates in the yearbook of labor statistics. However the rats have declined since 1990 in China. Overall national participation estimates mask significant variations in trends by age and sex. The main reason is the transition of economic system. Now it may be the time to adjust the methods to collect information about labor supply.

Keyword : Labor force participation rate, Labor supply , Labor statistics.

8. The Research into the Measures of NAIRU in China

Zeng xiangquan Yu yong

Abstract: As an important piece of business cycle theory，the natural rate of unemployment (or NAIRU—the non-accelerating inflation rate of unemployment) is a valuable analytical concept. It simplifies the discussions and choices of the macroeconomic policy. However, the use of the NAIRU-concept is not very widespread in china, mainly because of the ambiguity of the real value.

After reviewing considerable of estimation approaches abroad, based on invariable parameter supposition, this article constructs a state space model composed of a process that describes NAIRU's variations over time and of a Phillips equation. The model assumes that, NAIRU is a random walk variable; inflation rate is determined by three factors: adaptive expectations and inertia, excess demand or shortage – estimated by the gap between the actual unemployment rate and the NAIRU – and short-term supply shock variables. This article estimates the NAIRU for two different measures of inflation and three different supply shock variables, therefore six different models; then the Kalman filter method is applied to estimate NAIRU which could varies over time from 1992 to 2004 (with further error bands around that).

The result of empirical analysis shows that, it appears a constant increasing NAIRU since 1992, and reaches the peak of 5.6% in 2002. Although the ascendant trend is very obvious, the estimated NAIRU varies relatively stable within the narrow range of 4.8 to 5.6 percent after 2000. Compared with main market economy countries in the same period, this level is not too high, but the proportion of natural unemployment and total unemployment is quite high. Through reviewing main change of the labor market in the recent ten years, our article attempt to explain the rising of NAIRU in several areas, the accelerating structural transformation and the serious problem of youth employment may be the leading cause. Therefore, the policy efforts should be made to strengthen the training system for the unemployed, improve labor market mechanism and pay close attention to youth employment.

Key words: Phillips curve NAIRU Kalman filter Unemployment

9. Data collection and Measurement of Registered Unemployment Rate in China

Ding dajian

Abstract: The authenticity of unemployment rate has been a big problem to not only scholars but also local and central government for a long time. Along with the development of market economy in China, people think much of the unemployment

phenomenon, but lose more and more trust about the index of unemployment. In this paper, first we induce and sum up the correlative productions. Second we research the government bill for setting up the system of registered unemployment in town. And then we give the visitation of people in several cities who work in community and deal with the work of registering the unemployment. The paper wants to analyze the index of " registered unemployment rate" to find the resolution and give the policy suggestion.

Key word: Registered Unemployment Rate, Data collection, Measurement

10. The research on measurement of employment and unemployment in U.S

Geng lin

Abstract: This article gives general details on the basic method and technique of measurement of unemployment and employment in U.S and analyses the differences of measurement methods between whole America, the states and areas. The measurement of unemployment and employment in U.S has a comparatively long history with a perfect system, by studying and analyzing which we can use for reference to improve and perfect our measurement system of unemployment and employment.

Key words : U.S Employment Unemployment Measurement

11. Labor force measurement — Taiwan's experiences

Zhang piji

Abstract: This article reviews the main method of human resource survey, including the manpower statistics which takes household as sample unit and which takes establishment as sample unit. And taking this as the master line, the article briefly elaborates the vicissitude process of manpower statistics. Taiwan's labor force survey is based on the international framework, but emphasizes the positive

manpower utilization on the economic level, not only on the social level. In the end, the article discusses the meaning of employment, unemployment and labor force, and introduces Taiwan's approach on several technical problems.

Key words: Labor force survey Taiwan Review

12. The Application and Progress of Panel Data in the Study of Labor Issues

Yi dinghong Ying wei

Abstract: The advantages of Panel Data in the study of labor issues have got more and more attentions. With the comparison of the application and progress of Panel Data in the study of labor issues between China and other western countries such as USA, the article tries to find the deficiency of the study and application of Panel Data in China and provides some advice for the research on construction and improvement of Chinese labor market's database based on Panel Data. And compared with western countries such as USA, we discover that there are disparity in the study on application of Panel Data , such as construction of database、the publication based on Panel Data and researchers on Panel Data. The article insists that the study level of labor issues in China would be promoted efficiently through using the experience of Panel Database's construction in the U.S.A. and some Europe's countries for reference to construct and improve our own labor market's database based on Panel Data.

Key words: Panel Data，The study of labor issues，Database，Application and Development