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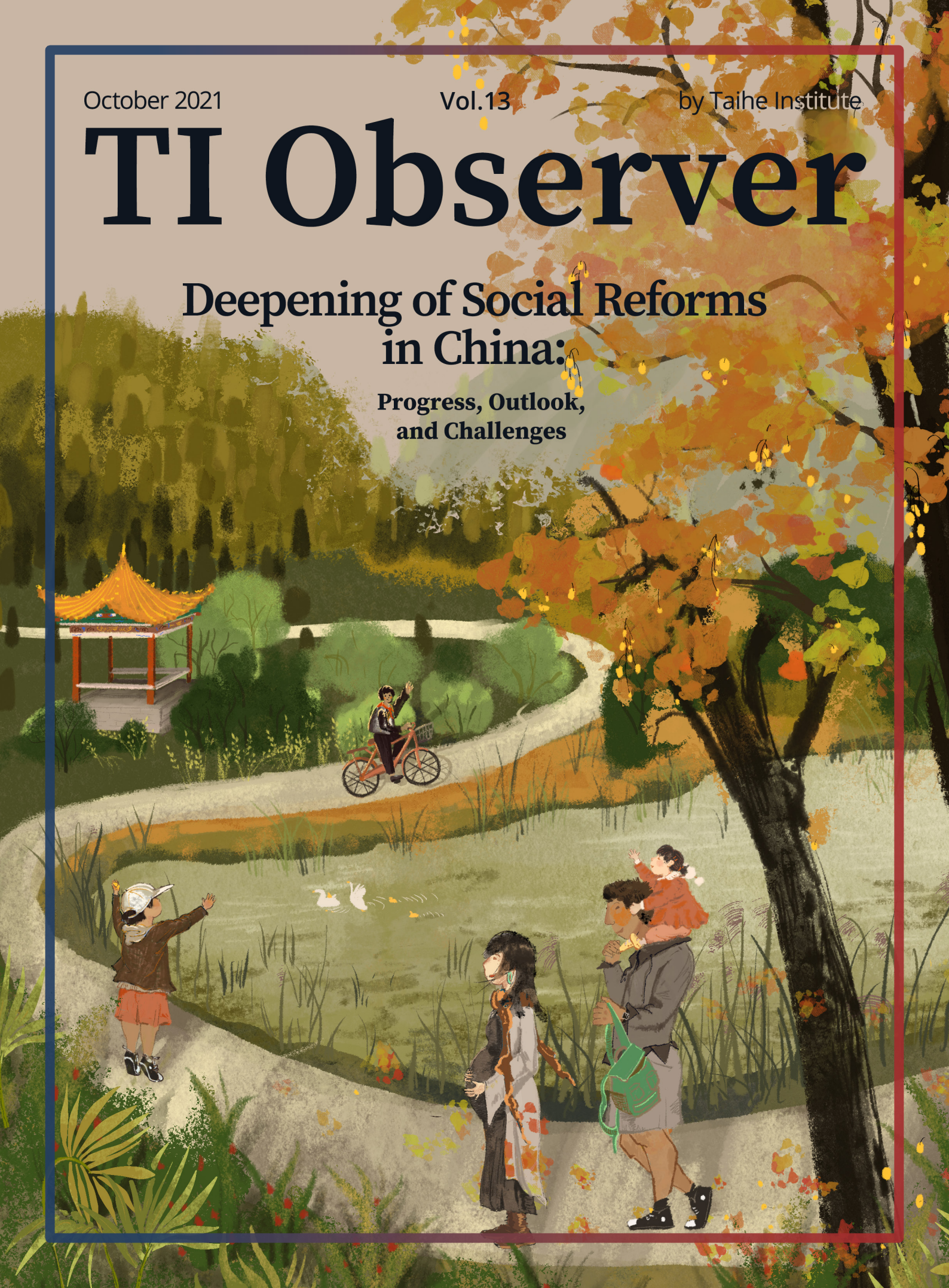
Deepening of Social Reforms in China:

Progress, Outlook, and Challenges



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Understanding China's Vocational Education Reform and its Implication to the World

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KANG Would you please briefly tell us about the plan for the ongoing vocational education reform?

LIU In fact, education in China has been in the process of reform, development, and innovation since the beginning of China's reform and opening up 42 years ago.

Vocational education is an important part of educational reform and development. Over the past five years, the Chinese government has issued a series of policies and measures on reforming and developing vocational education. Relevant data shows that China has made great progress in developing vocational education. Currently, China has 11,500 vocational schools, with a total of 28.5718 million enrolled students. There are 6.0037 million students attending secondary vocational schools, accounting for nearly half (41.7%) of all students receiving high school education. About 4.8361 million students are enrolled in higher vocational colleges (short-cycle higher education), accounting for 52.90% of all students receiving general vocational-technical education.

Of the vocational education reform policies in recent years, the most influential one is the Notice on Issuing the National Vocational Education Reform Implementation Plan released by the State Council in January 2019. I think I should highlight several messages conveyed in the Notice.

The first one is about the positioning of vocational education. That is, vocational

education is regarded as another type of education for talent training. This was the first time that China established the status of vocational education in an official document. It was a watershed event that might help change the public's perception concerning vocational education, and it also marked a major breakthrough in the future development of China's education sector.

The second one is about the idea of building a modern vocational education system characterized by vertical and horizontal integration and breaking the ceiling of professional training programs. Horizontal integration refers to the seamless connection of vocational education with general education and continuing education. In the past, when people talked about vocational education, they would think that their learning would reach the top as they finish their professional training programs, which tend to be short-term. Indeed, they could use vocational education as a springboard and transfer to universities through continuing education. But starting from 2019, within the framework of horizontal integration, China began to introduce vocational education programs at the undergraduate level in some pilot cities. Now, the degree that students would receive from these programs is supposed to be treated equally as a bachelor's degree.

The third one is about the revision or formulation of major lists and curriculum standards.

Another one is about the introduction of the "1+X certificate" system, which was a move taken by the CPC Central Committee and the State Council to enhance the strength of vocational education and promote education-industry interaction via school-enterprise cooperation. In other words, the move was to further reform talent training models and enhance the adaptability of vocational education by incorporating industry and enterprise standards into the curriculum. The "X" serves as a supplement to and an expansion of the "1"—the academic credential.

Over these years, China has been advocating the integration of education and industry and the cooperation between schools and enterprises in vocational education. In fact, this was inspired by the German dual system of vocational education, as it is a type of education that nurtures talents geared towards market needs and direct participation in socio-economic development. Therefore, it is necessary for students to understand enterprise operations and industry development during their studies. In other words, students attending vocational

Students learning technical skills in a Chinese factory Source: edtechchina.medium.com

school should not only have a firm grasp on professional knowledge and skills, but, more importantly, they should have the opportunity to practice what they have learned in enterprises during their studies so that they can be well adapted to their work after graduation. The "1+X certificate" model was designed to enhance career adaptability. Now, China has already approved the introduction of 447 certificates in different industries. But I think this is far from enough.

KANG Could you be a little bit more specific about the connection between China's vocational education and Germany's dual-system vocational education?

LIU China began to draw on foreign experiences, including Germany's dual-system vocational education we just talked about, at an early stage of reform and opening up. Since the early 1980s, there have been dual-system vocational education pilot programs running in various schools and cities, such as Suzhou, Wuxi, Changzhou, and Wuhu. As part of the comprehensive educational reform, vocational education was not isolated and could not develop in isolation.

The so-called dual system is an educational approach, in which the government and enterprises cooperate to train technical workers in the process of vocational education. The remarkable achievements of the German manufacturing industry, especially the country's economic take-off after World War II, should be attributed

to its unique dual-system vocational education and the high skill levels of its technical workers. German entrepreneurs believe that first-class products are the results of R&D by innovative researchers as well as the high proficiency levels of skilled technical workers. Without proficiency in technical skills, advanced scientific research achievements can hardly be transformed into competitive products.

The gist of the so-called dual-system vocational education, as the name suggests, lies in the term "dual." The term can be approached from the following perspectives:

The first one refers to dual training institutions, namely enterprises and vocational schools. In Germany, more than 500,000 (about 20%) of the total of over 2.6 million enterprises have participated in dual-system vocational education.

Second, the dual-system can be understood as a dual-track type of education, covering vocational skills and professional theories. Students (apprentices) engage in skill and theory training in enterprises for three to four days a week and study academic and specialized courses in vocational schools for the remaining weekdays.

Third, dual textbooks for practical and theoretical training, respectively. Host enterprises use practical training textbooks compiled by the Federal Institute of Vocational Education and Training to ensure uniform standards and consistent quality of vocational skill training.

The forth one refers to dual teachers for practical and theoretical training, respectively. Employees of a host enterprise may serve as full-time or part-time teachers for practical training.

Fifth, dual identities—apprentices at enterprises and students at vocational schools. As apprentices, students need to sign a legally binding training contract with the host enterprise, which clearly stipulates the rights and obligations of both parties during the training process. Most students who complete their apprenticeships at the corresponding enterprise will become eligible employees (upon their own will) of the enterprise before their graduation.

The term also concerns dual exams—skill exams and qualification exams, and

Carlo Humberg, expert on the German dual vocational education system from TÜV Rheinland Academy at the International Summit and Exhibition for Vocational Education held on September 27, 2018 in Guangzhou, China

Source: www.tr-academy.com

dual certificates—vocational qualification certificates issued by the relevant guild and graduation certificates issued by the school.

In Germany, technical workers trained this way normally enjoy high social status and make good money. After graduation, these technical workers can still pursue continuing education at work. With a grasp of professional skills, they can support their family and lead a stable well-off life. Due to the high demand of the manufacturing industry for technical workers in recent years, 65% of middle school graduates would choose dual-system vocational education over the usual high school-university path. Of course, the door of colleges and universities remains open to them after they finish their vocational education if they are willing and academically qualified to pursue further education.

KANG New Zealand and some other countries also have their unique vocational education models. Why did China choose to learn from Germany's dual system instead of anything else of other countries?

LIU Since the reform and opening up, China and Germany have maintained close cooperative ties in the field of education, and this have led to fruitful results. We

can, and we have learned a lot from the design of the dual-system vocational education model. But China's interaction with the outside world is not confined to its exchange with Germany. We have also been learning from the successful practices of some other countries, such as the micro-credentials system of New Zealand, the competency-based education (CBE) curriculum development of the United States, and the vocational qualification systems of the UK and Australia. We have carried out pilot programs at the national, provincial, or school level in many schools and across many disciplines. Overall, these programs represent continuous progress in China's reform and opening up in the field of education. They are not only about technical learning but also about educational methods. For example, many schools are experimenting with the project-based teaching method and the competency-based curriculum development model.

KANG How do we adjust vocational education to the current social context, and what do you think of people's stereotypical image about vocational education?

LIU How we can enhance the adaptability of vocational education is more of a question about how we reform vocational education prospectively than one about what we have run into the ground.

First, fundamentally and essentially, vocational education must meet the needs of first, socio-economic development and second, people's all-around development. In other words, the adaptability of vocational education to the socio-ecnomoic change as well as the mutual adaptability between vocational education and people's comprehensive development should come into play to serve both needs. This has been a topic of interest for many years for educational theorists and practitioners. Since 2019, the Chinese government has issued many documents, policies, and measures in this regard, such as "cultivating talented people with high moral standards," "integration of industry and education," "the reform concerning teachers, teaching materials, and teaching methods." However, striking a balance between the two so that vocational education serves to teach students practical skills and to thrive as a person is a long process that requires a lot of efforts.

Second, regarding the reform of vocational education, we should shift from

"reactive adaptation" to "proactive adaptation." Discussion on vocational education should not be limited narrowly to people in the educational field, especially in the vocational education circle. In the future, students of secondary vocational schools, higher vocational colleges, or undergraduate-level vocational colleges are expected to not only react by participating in the production process and completing specific production tasks after they graduate but, more importantly, to be able to actively participate in planning the development of their employers (departments) during their studies and take ownership of their work. To make this happen, relevant people from the economic and business circles should be invited to participate in the whole process of designing adaptive vocational education systems.

Third, China is advancing toward its second centenary goal of fully building a modern socialist country that is prosperous, strong, democratic, culturally advanced, and harmonious. Accordingly, China is undergoing a new round of industrial restructuring fueled by the fourth industrial revolution. For example, China has proposed the rural revitalization strategy to develop its central and western regions. On the adaptability of vocational education, I want to talk about the concept of "reverse adaptation" to approach it from a different angle. To be more specific, the country should also consider adjusting its economic and industrial development plans in a way to serve the development of vocational

Students and their parents sign up for vocational schools at an enrollment fair in China
Source: news.cgtn.com

education and the demand for vocational skills. Some industrial and R&D departments can take the initiative to set up entities in small- and medium-sized cities or villages in central and western China to better facilitate rural revitalization and retain local talented people.

Indeed, people tend to discriminate against vocational education, thinking that students settle for vocational education because their "poor academic performance" or "low college entrance test scores" force them to "seek a way out." As mentioned above, in recent years, the Chinese government has issued a series of policies to enhance the adaptability of vocational education, thus improving the attractiveness and status of vocational education. For example, the undergraduate-level vocational education model provides a path to higher education for vocational learners. Theoretically, it is designed to dispel the whole idea of creating hierarchies in education. In addition, to achieve equality in educational opportunities, the Chinese government has taken measures to reduce tuition fees and provide living allowances for students in and from poor areas.

KANG It seems like international exchanges and mutual learning are important for us not only in the oft-cited economic sector but also in the education sector. So what are the goals for China's education reform? More specifically, would you please give us some ideas on the objectives of the deepening of China's vocational education reform?

LIU The year 2021 is the first year of implementing China's 14th Five-Year Plan when we can evaluate our educational reform and development efforts during the 13th Five-Year Plan. Based on the preceding achievements, the 14th Five-Year Plan lists nine major tasks for vocational education development. Here I would like to share my interpretation of these major tasks.

First, fully implement the fundamental task of cultivating talented people with high moral standards. This task is about what kind of people to cultivate.

Second, improve modern vocational education systems, consolidate the status of secondary vocational education, and adhere to the policy of equal development of general education and vocational education in the high school stage. As I said,

the ratio of students enrolled in vocational education to those enrolled in general education was about 41.7% in 2019. We should maintain this ratio in the high school stage. In addition, we should enhance the status of short-cycle higher education and vigorously promote vocational education at the undergraduate level.

Third, deepen the integration of industry and education and the cooperation between schools and enterprises, and build industry-education integration groups (alliances) and training bases.

Fourth, comprehensively improve the quality of talent cultivation. This involves reforms of curricula, teaching materials, and educational evaluation systems.

Fifth, encourage teachers to develop both practical and theoretical teaching abilities.

Sixth, promote open cooperation in vocational education. This task puts special emphasis on encouraging the introduction of internationally recognized certification, supporting qualified schools in helping enterprises go global, setting up Silk Road School in Belt and Road countries, pushing forward with vocational education pilot programs in China co-led by enterprises and colleges, and

International students from Africa taking e-commerce training courses at Chongqing Business Vocational College on May 28, 2020
Source: www.pressreader.com

striving to form a Chinese-specific dual-system talent training model that can be popularized and replicated.

Seventh, improve the social service capabilities of vocational schools. This task goes along the same line as improving the adaptability of vocational education, as I mentioned earlier.

Eighth, boost digital adoption in vocational education, that is, apply AI and other technological advances in vocational education. For example, build smart campuses that use advanced network infrastructure and Internet-connected services, and create 50 high-quality vocational schools, 50 competitive and characteristic majors, and high-quality courses taught by 100 top teachers on the cloud.

Ninth, deepen the comprehensive reform of vocational education. Overall, the current round of vocational education reform is to improve the quality and efficiency of vocational education and further strengthen international exchanges and cooperation in this regard.

After four decades of reform and opening up, we should continue going global and bringing in premium resources. We should also draw more lessons from the vocational education practices in western developed countries and innovate based on these lessons. I know that 20 or 30 vocational schools in China have fully introduced Germany's qualification certification system. Students are trained according to the German model and will take skill certification exams in line with German standards. The guild-issued certificates are of high value as the exams are supervised by certified teachers. A good example is that more than 30 graduates from Dongguan Technician College have obtained German certificates and signed labor contracts with German enterprises.

To promote "going global", China calls for the building of vocational education cooperation centers in Belt and Road countries. Specifically, China supports qualified schools in helping enterprises go global by jointly setting up Silk Road Schools, Luban Workshops, and other educational institutions in Belt and Road countries to cultivate local talents for these enterprises. In this way, we can better promote cultural exchanges between China and foreign countries.

Thus far, we have achieved remarkable results in high-level visits and inter-

university exchanges. However, cultural exchanges are not limited to these but incorporate interactions at various levels. I think there is still a great potential for cooperation in vocational education and that exchanges at this level can promote mutual communication and understanding between the Chinese and foreign young people and allow the rest of the world to understand the logic behind China's development.

KANG What are the messages of the vocational education reform for the outside world? What opportunities or challenges will it bring to the outside world, including foreign enterprises?

LIU Over the past few years, some Chinese enterprises and higher vocational colleges have started cooperation with Belt and Road countries. We translated the courses of China's short-cycle higher education into local languages. Local students attended classes taught in accordance with our educational syllabus and took exams based on our exam guidelines. As a whole, China's vocational education courses and exams were in general highly recognized in foreign countries. But so far, we have not formulated a set of internationally accepted qualification standards.

Therefore, in this reform, China calls for active participation in the formulation of international standards related to vocational education. Many countries and regions have taken vocational education as an important part of lifelong education and have established their own governance framework. The framework can vary based on each country's specific cultural and social conditions. For example, despite being an active advocate of the EU self-regulation framework, Germany has its own national governance framework that is different from the EU framework. Compared with the EU, Germany has higher and more specific requirements for talent training.

Therefore, China should assimilate and improve what it has learned from the West and strive to form a China-specific dual-system talent training model that can be popularized. The talent training model with Chinese characteristics aims to cultivate talented people with high moral standards and promote the moral, intellectual, physical, and artistic development of students. Like general education, vocational education for the training of skills and techniques is also

responsible for improving people's essential qualities and cultivating talent.

This is by no means a small goal. It sends an important message to the outside world that China is seeking broader and deeper international cooperation. For foreign countries, this means opportunities. China should build a platform for high-level vocational education cooperation and exchanges and steadily promote school-enterprise initiatives to run vocational education schools in China to provide useful examples for such cooperation.

China has launched several vocational skill competitions in partnership with countries such as Australia and Belgium. Meanwhile, China encourages vocational schools to enroll excellent international students from all over the world, especially from Belt and Road countries. In the future, we hope that, by means of education and through mutual learning, we can broaden the platform for exchanges between China and the rest of the world and improve China's capability to cooperate with other countries.

The German Model

Vocational and Educational Training Reform in China

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The beginning of every career is founded in education. Knowledge acquisition, however, is not a straight line from kindergarten to university. For many students, career direction is decided at the completion of middle school at 15 or 16 years of age. At this juncture, the pursuit of further education is often split into a university or vocational and educational training (VET) stream. National models for VET differ markedly, but widely recognised for its efficacy is Germany's "Dual System," which combines both theoretical learning and practical training.[1] Germany's dual-model VET splits the training period between two separate locations, with apprentices spending around 70% of their time within a company and the remaining 30% in a vocational school. This dual-model, which also underpins vocational education and training in Austria and Switzerland, has received much praise and admiration in China.[2] This admiration has also been present in Anglo-America where attempts to "revive or restructure apprenticeships as major pathways into skilled employment" have often been unsuccessful.[3] For example, the Organization for Economic Co-operation and Development (OECD) recommends dual-type VET training to counter the weaknesses in the US system of vocational education and training.[4] As China's economy shifts toward high-end value chains and industrial digitalisation, reform of its VET sector has become a national priority and the central government has drafted a new "Vocational Education Law" that seeks to align more closely with the "German Model."[5]

Leading Chinese financial market analysts have noted that China has

1 Shulei Zhao, Guifang Liu and Qingxi Hou. 2014. "The enlightenment of German higher education 'Dual System' to the China's high education system." Paper presented at *International Conference on Education Reform and Modern Management,* 2014.

2 Junmin Li, Kristina Wiemann, Weiping Shi, Yanan Wang and Matthias Pilz, "Vocational education and training in Chinese and German companies in China: a 'home international' comparison," *International Journal of Training & Development, no.* 23. (2019):153-168, https://doi.org/10.1111/ijtd.12151.

3 Thomas Deissinger, "Cultural patterns underlying apprenticeship: Germany and the UK," *Divergence and convergence in education and work* 38, (2008): 34.

4 OECD, *OECD Economic Surveys: United States 2012*, https://doi.org/10.1787/eco_surveys-usa-2012-en.

5 "China mulls law revision to promote vocational education," *Xinhuanet*, Jun. 7, 2021, http://www.xinhuanet.com/english/2021-06/07/c_139994037.htm.

turned from "the American way" to "the German way" and pointed to "the German model [as] a strong contender as a guiding development model."[6] Discussion has hinged on three convergent policy directions: anti-trust regulation, especially concerning the tech industry and education, maintaining the central role of manufacturing as the services sector expands, and ensuring education is more affordable, student friendly and vocationally focused. For China, these policy initiatives are designed to institute law-based governance, restrict exploitative investment, both domestic and foreign, and direct national resources toward long-term economic development as outlined in China's 2035 Long Range Goal[7]and the second Centenary Goal, to develop a rich, powerful, democratic, and civilised modern socialist country by 2049.[8]

In looking to the German model, China seeks to reform and improve its VET system to tackle skills shortages for industrial upgrading, youth unemployment, rural revitalization and poverty alleviation. The appeal of the German model for China lies with similarities in their significant export industries underpinned by manufacturing prowess, which account for 25% of economic output in China, 18% in Germany, and 11% in the U.S. Germany's continuing industrial success is inseparable from both its highly innovative "mittelstand" – economic belts of family owned and geographically decentralised SMEs (small and medium-sized enterprises) – and its highly integrated 'dual-system' VET that links public education with technologically advanced middle sized manufacturers. According to Statista, over five million new SME's are founded in China each year, a 10% year-over-year growth rate.[9] In 2020, the number of SMEs was estimated to be over 43 million, accounting for over 90% of total enterprises, 60% of GDP, 70% of patents, and 80% of national employment. Furthermore, from a total labour force of 750 million, the number of skilled workers has risen to 200 million, indicating the trend towards a higher-quality workforce.[10] The challenge going forward is to harness VET schemes that drive SME growth while addressing imbalances found in China's previous development path.

During China's first surge of economic growth, based on low-cost and export-led manufacturing, Sino-German cooperation had facilitated the introduction of 'dual-model' VET schemes. Professor Jiang Dayuan, the former editor-in-chief of the journal Chinese Vocational and Technical

6 Tom Hancock, "A Roadmap for China's Crackdowns Can Be Found in Germany," Bloomberg, Aug. 16, 2021, https://www.bloomberg.com/news/articles/2021-08-17/economists-look-to-german-model-to-explain-china-s-crackdowns.

7 "CPC Central Committee's development proposals set long-range goals through 2035," SCIO, March 11, 2020.

8 Jae Young Lee, "The 5th Plenary Session of the 19th Central Committee of the Chinese Communist Party and Its Implications for the Korean Peninsula," Nov. 12, 2020, https://repo.kinu.or.kr/handle/2015.oak/11984.

9 "Number of SMEs in China 2012-2020," Statista, Mar. 11, 2021, https://www.statista.com/statistics/783899/china-number-of-small-to-medium-size-enterprises/

10 "China to better protect workers' rights in new labor forms to boost flexible employment," Xinhuanet, Jul. 7, 2021, http://www.xinhuanet.com/english/2021-07/07/c_1310048246.htm.

Education, recalled that the first cooperative project at the Nanjing Institute of Architecture in 1983 was quickly followed with more than 35 specific economic and technology cooperation projects between relevant Chinese and German ministries.[11] In 1985, the pilot dual-system VET projects were extended to six Chinese cities: Shenyang, Suzhou, Wuxi, Changzhou, Wuhu, and Shashi. These programs sought to augment practical hands-on experience and lessen reliance on schools and theoretical instruction. Accordingly, during the 1990s, the central government established VET research institutions in Beijing, Shanghai, Shenyang, Nanjing, Changsha, Changchun, and Shijiazhuang. In 1994, China and Germany signed the Joint Declaration for Strengthening Cooperation in the Field of Vocational Education, the first and only bilateral agreement for cooperation in vocational education.[12] While China's education model proved effective in large scale dissemination of knowledge and skills during the Deng-era and post-WTO phases of economic expansion, China's push to achieve technological self-reliance requires further industrial, educational, and labour innovation at speed and scale.

One key challenge for the introduction of the German VET model in China was the search for common principles between the two systems. VET needed to be embedded in national work culture and labour law to form the basis of a specific VET with Chinese characteristics. China's work culture and VET regime would shape principal ideas and legitimatise the direction of instruction. According to Gonon and Deissinger, there are three types of VET systems:[13]

A Market directed: the work culture and training model aligns with the functional needs of the company or actual job to direct the learning principle.

B Politically directed: the work culture and a bureaucratic training model align with academic achievement to guide the learning principle.

C Society directed: the work culture and training model are regulated by both the market and bureaucracy – a dual control – where the vocational principle determines the learning principle.

11 Dayuan Jiang, "Chinese Vocational Education: Borrowing and Reforming," Chinese Education & Society 46, no. 4 (2013): 92-99, https://doi.org/10.2753/CED1061-1932460409.

12 *Ibid*.

13 Philipp Gonon and Thomas Deissinger, "Towards an international comparative history of vocational education and training," *Taylor & Francis*, 2021.

14 *Ibid.*
15 *Ibid.*, 95.

During China's early period of VET development and education reform, the key constraint on teaching quality was identified as teacher resources. In 1997, Tongji University in Shanghai was selected to host the first Sino-German teacher development and training institute. China soon established VET teacher training bases at 58 universities. As VET gained wider societal acceptance, traditional teaching universities adopted the discipline and the first doctoral program was established at East China Normal University.[14] While Germany remained the primary VET model and partner, China's open educational philosophy and training model also gained valuable knowledge internationally. China introduced the Modules of Employable Skills (MES) from the International Labour Organisation (ILO), joined with Australia to launch a three-year vocational education cooperation project in Chongqing, and, following a number of high-level fact-finding visits to Canada and the U.S., China introduced the competency-based education (CBE) curriculum development model. Significant attention was also paid to the UK and other countries, which established parallel national vocational qualification schemes alongside their national degree systems. According to Jiang, "Britain's vocational qualification system opened up a new way for people to move into the middle class, as an alternative to academic qualifications."[15] Thus, China adopted the UK's Business and Technology Education Council (BTEC) curriculum in 1998.

Notwithstanding China's experimentation with various international models over past decades, Sino-German VET cooperation and the "dual-system" model have proven advantages over its Anglo-American counterparts. The German model is grounded in the distinction between vocational education (applied sciences) and academic higher education (university). In contrast, the Anglo-American model gives common lower and higher academic degrees for all subjects (bachelor's degree and master's degree, respectively). In the German model, a diploma is awarded for the more practical subjects such as engineering, but also economics and business. For the more theoretical subjects such as social sciences or humanities a Magister Artium or Master of Arts is awarded. These academic differences between the Anglo-American and German systems have their roots in their historically different approaches to industrialisation.

Historically, the early success of industrialisation in England had been achieved without a significant contribution from education. Emphasis was placed on the common belief that preparation for the world of work was best given on the job rather than in formal education—a type-A VET model. The German archetype however, recognised the importance of a type-C dual-control system, in which society directed work culture and the training model was regulated by both the market and bureaucracy. Overtime, the Anglo-American model discontinued education principles that supported apprenticeships and its supporting social framework.[16] By the beginning of the 21st century, Anglo-America's neo-liberal focus had corporatised education services and turned to immigration to fill skill shortages and weaken organised labour's wage-bargaining power. A key consequence was the diminishment of welfare and social state activities to expand public education, which exacerbated the disjunction between educational development and industrial and economic achievement.

Another key factor when considering adoption of the German "dual-system" model is the extensive academic study and annual publication of numerous articles on the development and reform of vocational education. Much of the literature on the transferability of the German VET system, however, lacks a clear definition of the terms "transfer" and "export" of education. In their study of VET transfer to Asia, Stefan Hummelsheim and Michaela Baur define "export" as copy or duplication, while the term "transfer" implies more variation and adaption.[17] For China, the concept of VET transfer is understood as a flexible adaption that assimilates German thinking in both research and practice with traditional Chinese culture and contemporary social and economic conditions. In this view, the orientation of VET specific concepts and requirements determines both the methods and strategies used in the process. China's unique positioning as both a socialist market economy and developing country requires a high level of flexibility for progression between the organisation of vocational training and general education according to its distinct learning criteria and systems of education and skills assessment.

For China to successfully transfer the German VET "dual-system" of training to its current economic development needs articulated in

16 *Ibid*.

17 Stefan Hummelsheim and Michaela Baur, "The German dual system of initial vocational education and training and its potential for transfer to Asia," *Prospects* 44, no. 2 (2014): 279-296, https://doi.org/279-296,10.1007/s11125-014-9311-4.

the principal contradiction "between unbalanced and inadequate development and the people's ever-growing needs for a better life," it faces a number of educational and labour organisational challenges.[18] Crucially, the German VET dual-system relies on a functioning training market with the character of a suppliers' market.[19] In Germany, large businesses and SMEs are the most important group in terms of training suppliers, accounting for 53% of the total. Government subsidised training courses are provided by private schools (10%), Chambers of Commerce and Industry (6%), professional associations (5%), adult education centres and trade unions (3% each). Another important VET scheme involves short-term extension courses of one or two weeks that promote skills upgrading for existing technical and commercial staff, managers and skilled workers in large and medium sized firms.[20] The diversity of training suppliers provides a great variety of objectives, methods, and training programs. These factors have implications for the growth of innovation, especially in SMEs, and the extent to which China's local training models influence training practices in the subsidiaries of foreign firms.[21]

The presence of a large number of German and European manufacturers and industrial enterprises in China play an important catalysing role to leapfrog into a more productive and sustainable VET program. Many large German companies including Volkswagen, Audi, Siemens and Bosch have previously launched "beacon" VET projects in international markets.[22] These multinationals possess both the financial resources to train skilled workers in their Chinese subsidiaries and are familiar with VET schemes hosted by their parent firms in Germany. However, VET transfer requires more than the influence a German or foreign parent company

Group photo taken at Sino-German Cooperative Vocational Skills Talent Training Base during President Frank Walter Steinmeier's visit to Zhongshan, Guangdong Province, on December 6, 2018
Source: www.edutechzs.com

18 "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era," *Xinhuanet*, Oct. 23, 2017, http://www.xinhuanet.com/english/2017-10/23/c_136699834.htm.

19 Diane-Gabrielle Tremblay and Le Bot Irene, "The German Dual Apprenticeship System: An Analysis of Its Evolution and Present Challenges," Mar. 2003.

20 *Ibid.*

21 Junmin Li, Kristina Wiemann, Weiping Shi, Yanan Wang and Matthias Pilz, "Vocational education and training in Chinese and German companies in China: a 'home international' comparison," *International Journal of Training & Development* 23, no. 2 (2019): 153-168, https://doi.org/10.1111/ijtd.12151.

22 Judith Wiemann and Martina Fuchs, "The export of Germany's 'secret of success' dual technical VET: MNCs and multiscalar stakeholders changing the skill formation system in Mexico," *Cambridge Journal of Regions, Economy & Society*, no. 11 (2018): 373-386, https://doi.org/10.1093/cjres/rsy008.

has on its Chinese subsidiaries. In particular, little is known about the training practices of China's domestic SMEs since they differ from large companies in important ways, such as experience with foreign environments and the level of resources available to manage operations and their access to local resources, local skills training models, and/or whether they simply adopt local practices. A critical area for education reform in China's VET education is its "high average and small variance" resulting from over reliance on theoretical classroom activities and rote learning.[23] Accordingly, China must build an innovative VET model based on world-class research capabilities with the primary objective of upgrading local vocational training principles that ensure the transfer of the German model's advantages to China's vast number of SMEs.

China has recognised the importance of SMEs as the main drivers of innovation and a key means of addressing moderated economic growth in the face of structural constraints, including declining labor force growth, diminishing returns to investment, and slowing productivity. As China's processes of "digital industrialisation and industrial digitalisation" accelerate, continuing institutional reform to support SME partnerships is crucial for the generation of robust, long-term economic development.[24] China's recent reforms of labour law recognise the importance of VET to SMEs and how "vocational skills training models tailored to new forms of employment will be developed, and subsidies provided to eligible workers participating in such training programs."[25] Important reforms included protection for the flexibly employed, the guarantee of fair remuneration, and the lifting of household registration restrictions. Substantial resources are directed to support and assist women and the unemployed as well as minority nationalities and poverty-stricken localities. Educational standards

President Frank Walter Steinmeier visiting the Sino-German Cooperative Vocational Skills Talent Training Base, 2018 in Zhongshan, Guangdong Province, on December 6, 2018

Source: www.edutechzs.com

23 "China's Economy Has Grown Up. Its Education System Needs to Keep Up," *Caixin Global*, Sep. 6, 2021, https://www.caixinglobal.com/2021-09-06/editorial-chinas-economy-has-grown-up-its-education-system-needs-to-keep-up-101769672.html.

24 "Xi sends congratulatory letter to China-SCO forum on digital economy, Smart China Expo," *Xinhuanet*, Oct. 26, 2021, http://www.news.cn/english/2021-08/23/c_1310143602.htm.

25 *Ibid*.

for classifying and grading occupations are also being brought into conformity, including certificates of schooling, certificates of vocational training and certificates of occupational qualifications.

While innovation, technological capability, and organisational flexibility are key to the success of SMEs, one major challenge for both Chinese and foreign employers is that they will still bear principal financial responsibility for much of the training process, including direct and indirect costs, training personnel, machinery, and administration. Compared to SMEs in other economies, which may have 100 to 500 employees, in China a medium-sized agricultural enterprise is required to hire a minimum of 500 people while a construction enterprise may have a maximum business revenue of approximately ten million US dollars. Notwithstanding these organisational and financial challenges, SMEs must remain the primary focus for China's VET adoption and practical hands-on training.

The importance of SMEs to VET schemes lies in their technological capability—measured by dividing the number of technological employees by the total number of employees— and distinctly innovative approaches to both manufacturing and service industries. SMEs have a crucial role as suppliers of components to large exporters. Many SMEs generate large amounts of direct foreign exchange by specifically targeting foreign markets leveraging their lower labor and material costs. The Trump-era tech-trade war and the COVID-19 pandemic adversely effected China's industrial supply chains and the resultant production volatility resonated along the entire chain destabilising larger companies and foreign export markets. Many SMEs were forced to withdraw from foreign markets to concentrate on domestic growth, which intensified competition, causing some to experience financial difficulties or bankruptcy. Employment losses related to SME performance spill into the consumer and real estate markets and generate more instability. In 2019, to counter the challenges of rising costs, financing difficulties, and limited innovation capacity, the Chinese government reduced the bank reserve requirement ratio to promote lending and readjusted tax policies. Despite, government policy support and a significant increase in SME numbers, the average life expectancy of an SME in China is estimated to be only 2.5 years, with many failing

during their first year of operation.[26]

Many SMEs have attempted to increase investor interest by harnessing the increasing flows of Foreign Direct Investment (FDI) into China's capital markets. China's Ministry of Industry and Information Technology (MIIT) has identified 4,762 SMEs with a high market share in specialised niche sectors and major national-level projects such as space exploration and high-speed railways. These "little giants" with strong innovative capacity and core technologies are comparable to the "hidden champions" of Germany's small and medium sized firms that are leaders in highly specialised global markets.[27] The central government recently launched a specialised SME stock market in Beijing designed to hasten IPOs and funnel domestic and foreign capital towards the "little giants."[28] SMEs are also active supporters of B2B e-commerce platforms with collective revenue reaching 6.4 billion USD in 2020.[29] In order to survive, SMEs need to revitalise their niche markets through logistical improvements, responsive marketing, and technical and skills upgrading.

China's draft revision to the Vocational Education Law calls for more high-quality vocational education resources from abroad and to welcome foreign students of vocational education. One way to accelerate foreign participation is to increase the numbers of enterprises, learning institutions, and students from Belt and Road (BRI) partner countries. Currently, there are German VET transfer projects in many BRI partner countries including Mexico, Brazil, Russia, Indonesia, Laos, Mongolia, Myanmar, Pakistan, Sri Lanka, Tunisia, Vietnam and Saudi Arabia.[30] China's Ministry of Education has called for more international communication and cooperation in the vocational education industry and encourages Chinese vocational education organisations to run schools abroad and advocates mutual recognition of vocational education qualifications. However, casting a wider net to attract participating VET firms in BRI partner countries also necessitates language training beyond English, extensive administrative resources, and integration with existing BRI frameworks for labour mobility and educational exchanges.

China's constant economic, scientific, and technological reform, and

26 Guoxiang Tang, Kwangtae Park, Anurag Agarwal and Feng Liu, "Impact of innovation culture, organization size and technological capability on the performance of SMEs: The Case of China," *Sustainability* 12, no. 4 (2020): 1355.

27 Yu Cheng, "New batch of little giants to champion SME cause," *China Daily*, Aug. 26, 2021, https://www.chinadaily.com.cn/a/202108/26/WS6126e3f3a310efa1bd66b2de.html.

28 Lanxu Zhou, "First-choice listing venue for innovative SMEs," *China Daily*, Oct. 11, 2021, https://www.chinadaily.com.cn/a/202110/11/WS616376afa310cdd39bc6df4e.html.

29 *Ibid*.

30 Melanie Oeben, Matthias Klumpp and Lumpe A, "Transfer of the German Vocational Education and Training System—Success Factors and Hindrances with the Example of Tunisia," *Education Sciences* 11, no. 5 (2021): 247, https://doi.org/10.3390/educsci11050247.

opening up combined with the process of globalisation has provided it with an independent program of technological and institutional innovation at speed and scale. The introduction of Dual Circulation signalled the shift to an economy characterised by services, higher value-added manufacturing, and consumer-oriented growth. China's Digital Transformation — digital industrialisation and industrial digitalisation — harnesses the capabilities of the little giants in telecommunications (5G), artificial intelligence (AI), electric vehicles (EVs), robotics, satellite navigation, aerospace, edu-tech, fin-tech, biotech, logistics, smart cities, and software. Greater cooperative efforts are required to attract talented professionals in industries such as communications and semiconductors, given that during the COVID-19 pandemic these sectors saw substantial growth. Together, Dual Circulation and Digital Transformation constitute a new digital superstructure of economic development supported by the BRI substructure of connectivity.

The digital Belt and Road supports a lucrative and expanding superstructure of homegrown e-commerce, social media, payment platforms, entertainment, online education, and share-economy applications adopted by commercial and consumer markets in Asia, Africa, and increasingly the U.S. and Europe. Further VET advancement in China requires that prime resources should be focused, and strategic planning made to deal with "key areas and stranglehold problems."[31] Accordingly, the innovation skills of professionally trained people are of the utmost importance. The systems regarding VET curriculums, teaching instructions, textbooks, and administration need to be updated in accordance with the requirements of both Dual Circulation and Digital Transformation.

To conclude, China has taken substantive measures to reform VET schemes by introducing integrated policy initiatives for labour, education, and SMEs. The nearly forty-year partnership with Germany plays a crucial role for cooperation and development of dual-model VET schemes. Research cooperation between China and Germany is essential for further adoption and adaptation of VET reforms. The topics and framework conditions of cooperation are best addressed in regular meetings that encourage further educational and VET

31 "Xi calls for developing China into world science and technology leader," *Xinhuanet*, Oct. 24, 2021, http://www.xinhuanet.com/english/2018-05/29/c_137213175.htm.

cooperation. Sino-German intergovernmental consultations continue to promote The Joint Action Plan 'Shaping innovation together!' that sets the framework for cooperation in research, science, and education. Key topics for Sino-German research partnership are innovation research, clean water and environmental technologies, urbanisation and land management, life sciences and bioeconomy, marine and polar research, climate research, electromobility, digital economy, as well as higher and vocational education, exchange of students and scientists, and thematic alumni networks. Emphasis should be given to Sino-German initiatives that promote SME responses to market demand with new product innovations that catalyse larger firms to adopt technological and marketing innovations. In the final analysis, the advantage of the German VET dual-system is its potential to enhance the competence of China's education system, catalyse a fusion of industry and education, and provide long-term structural improvements that align with China's Digital Transformation, BRI connectivity, and the Dual Circulation paradigm.

Major Policy Shift Explained: Why is China Adopting a Three-Child Policy?

Interviewed by Kang Yingyue,
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Jiang Quanbao

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KANG China has relaxed its two-child norm and endorsed a three-child policy last year. What are the reasons for this policy shift? Why is it important?

JIANG There are four main reasons for the promotion of the three-child policy.

First, China's total fertility rate (TFR) has fallen to a very low level, and the odds of achieving a substantial increase in the future are very small. China's TFR first began to fall below the replacement level in the 1990s and has continued to decline thereafter. Since 2000, it has fallen to a level of 1.5. In 2020, the number became 1.3. Due to mass urbanization and rapid economic development, China's financial and social calculus has changed and multi-children households are no longer that desirable. And the trend is unlikely to reverse in the years to come. This will impact China's social and economic development in important ways, and thus reforms on existing population policies must be implemented.

Second, the number of births has dropped rapidly over the past few decades and the age profile has changed. Since the 1970s, the number of births in China has dropped rapidly. Census data shows that 22 million babies were born in 1982. In 2000, the number became 17 million, and in 2020, 12 million. This decrease has led to tremendous changes in the age profile of China's population. The 2020 census data shows that the number of children aged between 0-14 accounted for 17.95% of the total population. The number is less than the percentage of the

elderlies aged 60 and above, which was 18.70%. In other words, China is on the way of entering an aging society.

Third, China's family size has shrunk, and the structure of families has changed. Since the 1980s, the size of households in China has continued to shrink. The number changed from 4.40 in 1982 to 3.44 in 2000, and 2.62 in 2020. In light of generations, the declining birthrate and the aging population have further increased the burden on individuals of elderly care, making elderly care less sustainable as individual families decrease in size. Moreover, rural migration, mass urbanization, and continuous population flow have made it increasingly difficult for live-alone elderlies to receive family care and mental comfort.

Fourth, the relaxation of the population policy, namely the selective one-child and the universal two-child policies, increased the TFR and annual births, but the effect of those relaxation faded away and both the TFR and the annual births dropped. Thus, actions are needed to step up the efforts towards this goal. In 2013, the Chinese government introduced the so-called "selective two-child policy:" couples were allowed to have a second child if either parent was an only child. In 2016, the policy was further liberalized and became the "universal two-child policy," which allowed every couple to have two children. While the year of 2017 witnessed a surge of childbirths after the new initiative was promulgated, the number dropped subsequently in the following years due to young people's unwillingness to have children. Therefore, a relaxation of the existing policy is necessary, and hence the three-child policy.

KANG Can you explain briefly why young people in present days are unwilling to have children?

JIANG There are a number of reasons for this.

The first one is that more and more women pursue higher education and career advancement. Since the promotion of higher education in the 1990s, the scale of Chinese universities has expanded rapidly. At present, the proportion of high school students in China receiving college-level education is high, and compared with the past, the amount of time that women spend on receiving education has been greatly increased, thus delaying marriages. Better educated women tend

to spend more time seeking career advancement rather than entering marriages according to the traditional norm that dictates wives to focus on household matters while husbands work outside and provide for the families

The second reason is that the current broad socio-economic reality has inhibited women's willingness to bear children to a certain extent. For most people in China, the ability to earn more money, purchase their own home, buy their cars, get married and have children, send their kids to good schools are the criterion by which to evaluate whether an individual is successful or not. As the real estate market continues to grow in China, the price of an apartment in cities has skyrocketed. This means that young people have to take a lot of effort focusing on their jobs and seeking career development, which then compromises their time and energy devoted to giving birth and raising child. If childbirth is one experience that many women consider to be of great significance in order to "make their lives complete," as many would say, then having the second or the third child is not necessary.

The third reason has to do with the issue of childcare. China is now in the process of vigorously developing its childcare system and improving its childcare institutions for children at the age between 0-3. Two issues can be reflected from this development. First, traditionally, a common practice of childcare for kids under three years old is that grandparents help the young couple look after their kids. However, things changed with rapid urbanization and the decrease in family size. Now, the first generation and the second generation may be geographically far apart. This has made the previous childcare model unviable for a lot of small families. In addition, more and more women have become aware of the impact that intergenerational care have on the future development of their kids. A good example is the spoil-brat character of children. And this had made young couples unwilling to ask their parents to help take care of their children when they are away at work. This consideration is also something that may affect a young family's decision to have child, as it hinders their personal development by distracting them from their career.

Forth, the cost of raising a child, particularly on education, is expensive. With a decline in the number of children, it is natural and rational to shift the focus from *quantity* to *quality*. While elementary and middle schools in China are offered for free within the Nine-Year Compulsory Education program, receiving continued education, attending high school and universities, and studying

away from one's hometown in pursuit of high-quality educational resources are common practices throughout the country. For example, once we conducted field research in a county where, although there were fairly good kindergartens and elementary schools built in the townships, most parents still chose to send their children out of town to receive education, even if this means that the children would be attending private schools in the county and that nursing and education expenditures would greatly increase the financial burden on the families.

The fifth reason has to do with the common problems that most marriages face in present days. Having your own apartment or house, the so-called *hunfang* (apartment available for marriage), is a prerequisite for entering a marriage. As I said earlier, apartment prices in cities are very expensive in relation to the average family income. And in rural areas, many people are inclined to purchase their own home in bigger town and county seats as well. This naturally leads to an extra financial burden on the family. Moreover, in some areas, families are divided into different classes. The first class consists of those families with two daughters. This is because Chinese traditional customs dictate that parents do not need to prepare a house and wedding gifts when they are marrying off their daughters. The second class is made up of the families with one daughter. Those with one son and one daughter belong to the third tier. Families with an only son are in the fourth, and those with two or more sons are in the bottom of this structure. One consequence of this reality is that parents with one son will not want to have a second child because the time, energy, and money that they are going to invest in raising their son are already so high that they can no longer afford to double or triple them. However, on the other hand, after giving birth to a daughter, some may choose to continue having another child (sometimes at the cost of sex-selective of female fetus) so as to achieve the widely desired "*ernu shuangquan*"—having both boys and girls.

But with regard to having three children, according to our survey in some rural areas, the number of couples that reacted to the three-child policy initiative was very small. In fact, little has changed despite the introduction of the new policy. The profile of those couples who decided to have the third child is pretty straightforward. Among all the couples having three children, a great number of them decided to do so because the first two babies were girls, and they had a preference for sons. Another key reason for some couples to have the third child is that they are remarried couples, and both have child from their previous relationships or marriages, and they wanted their own kids. For most people and

families, they simply do not want to have a third child. So, one key area of our study is to examine under what circumstances would a couple become willing to have three children. I was told that while money is one part of it, the time and energy devoted to childbearing, household and educational duties is too much and this is an exhausting process that many people do not wish to experience again. So, has this lift of restriction come with an increase on the fertility rate? Not really. But on the other hand, people now have more options and the rights of deciding on their family size. This is indeed a major change.

KANG What are the key objectives? Should we take this policy initiative at face value? In other words, how should we understand the three-child policy? What are the issues or problems that the three-child policy is trying to address?

JIANG The three-child policy can be viewed as an important message that the Chinese government is trying to deliver to the public. In short, its main objective is to optimize the existing policies and encourage childbirth. Supposedly, this will be achieved through enhancing the openness and inclusiveness of China's existing population policies and improving relevant supporting measures such as maternal stipend, motherhood bonus, better and affordable or even free daycare, prolonged maternal leave, better educational opportunities for both urban and rural students, extend the compulsory education from 9 years to 12 years (high school), thereby encouraging the willingness of women of childbearing age to have children. The policy is essentially aimed at elevating China's TFR, expanding the population size, and promoting socio-economic development.

Again, the initiative was driven by the fact that China's fertility level has declined to a fairly low level, and this is unlikely to change in a short period of time. With a gradual decline in birthrate, China will soon face a negative population growth where the size of the population will experience a steep drop. Thus, the three-

"...has this lift of restriction come with an increase on the fertility rate? Not really. But on the other hand, people now have more options and the rights of deciding on their family size. This is indeed a major change."

child policy can be first perceived as a preventive measure that may help address this issue.

Second, the three-child policy has legitimized childbirths. China used to have the so-called "out of quota births" or "out of plan births" within the framework of the earlier planned birth policy. Millions of children born outside the system, the so-called "invisible children," had no access to any form of social welfare, and parents had to get a letter of approval from the local family planning commission so as to register the "out of plan" kids in the family's *hukou* (household registration) to prove their existence. Without an approval letter, a hefty social maintenance fee would be levied on the family for breaching the one-child policy and to register the child in the *hukou* system. But a lot of families could not afford to do so. Now, with the gradual relaxation of China's population policies and the lift of the social maintenance fee, *hukou* registration is not a problem at all. Parents can register their children without any certificates from the family planning system.

KANG What should we expect for the future development of China's demography?

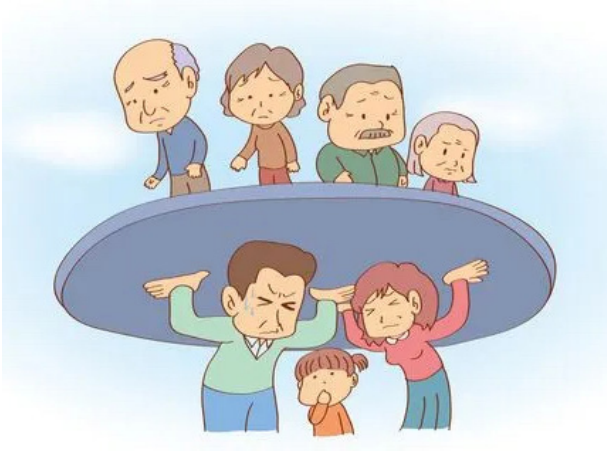
JIANG According to the 2020 census data, there are several trends worth pointing out. The current population growth rate has slowed down, the sex ratio at birth has declined, and aging population has expanded, the quality of the population has improved significantly, and the size of the population living in urban cities has increased.

The future development of China's demography will likely be characterized by the following aspects. First, the total population of China will soon reach its peak and begin to decline. And the number will continue to fall in the future. Second, the size of China's working-age population has begun to shrink. The implication is that China needs to change its economic model by shifting its focus on maintaining the unlimited supply of labor to increasing its labor productivity. Third, in the past, marriage and childbearing used to be common practices for Chinese women. This has changed in recent years as putting off marriages and choosing to be child-free has become a norm for many young people, especially the millennials. This trend is unlikely to be reversed in the near future. Fourth, China's aging rate will continue to accelerate. This will be a big challenge for many cities and rural areas. Currently, many elderlies residing in rural areas have to rely on their family

members for financial support. The Chinese government is now in the process of establishing and improving its rural pension system. However, the result will not be evident within a few years as the challenge is not easy to be dealt with given China's existing urban-rural divide. Fifth, the size of families will continue to shrink. There will be more single-person households, whether it is that of an elderly or a young adult.

KANG You mentioned about the "4-2-1 family model" in your works, what is it about? Would this model change in the future? If so, how?

JIANG The "4-2-1 family model" refers to a family model with four grandparents (first generation), two parents (second generation), and an only child (third generation) to the two parents. This structure can be observed in many societies. The reason why it is particularly interesting in China is that China once implemented the one-child policy, which has led to the emergence of the "2" in a 4-2-1 family. In the future, as the willingness of young couples to engage in childbearing practices and the actual birthrates decreases, a large proportion of couples will choose to have only one child, and this will then lead to more 4-2-1 families. Yet, the "2" in the future 4-2-1 family structure is no longer caused by the population policy instituted by the government in the 1980s. Rather, it is a manifestation of the current young generation's willingness to procreate.



Source: www.sohu.com

KANG How should the state cope with the changes in the years ahead? Demographic issue is not unique to China. South Korea and Japan, for example, are countries that have an aging population. How are they addressing this issue? What are the prospects for future population policies?

JIANG China should refer to the experiences of other countries and formulate a series of policy measures that are most appropriate to China's own national situation in dealing with demographic problems that may arise in the future.

Take South Korea and Japan as examples. Both have entered an aging stage in earlier decades. Referring to the practices implemented in these two countries can be insightful when we are dealing with problems including an aging population and a declining birthrate.

When Japan was faced with this aging population issue, the Japanese government played a leading role by incorporating the aging workforce into the country's socio-economic development plan and promulgating a series of supporting laws and regulations to motivate people's coordination. Improvement was also made to Japan's long-term care insurance system and the senior-age employment system to encourage healthy seniors to continue to participate in the labor market. Meanwhile, in the field of medical research and automation, the Japanese government advocated scientific research institutes and enterprises to actively explore and innovate and use technological means to address the labor shortage issue and reduce the burden of elderly care on young people. The Japanese government has also encouraged corporations to seize business opportunities, actively develop the so-called "silver industry," host various summits and forums that center around the topic of aging population to attract the attention of experts, scholars, investors in taking joint efforts with the government to deal with the concern.

"China should refer to the experiences of other countries and formulate a series of policy measures that are most appropriate to China's own national situation in dealing with demographic problems that may arise in the future."

Now looking at South Korea. When facing the demographic challenge, the Korean government first started by increasing the fertility rate by providing living subsidies for families, giving families with more than one child the priorities in matters such as buying or renting a house, and encouraging firms and companies to increase the wages of workers on maternity leave. Similar to the Japanese government, the Korean government has also formulated a series of laws and regulations to protect the rights and interests of the elderlies. These include the National Pension Insurance Law, the establishment of a public-private social

"China's future population policy should be designed and formulated in light of today's demographic reality...we should aim to transform demographic dividend into talent dividend."

security system, as well as a reformed pension system. South Korea has also motivated companies to hire senior citizens through subsidies and required companies to submit annual reports to ensure policy implementation.

China's future population policy should be designed and formulated in light of today's demographic reality. We should relax birth restrictions and implement various supporting measures to reduce the cost of "childbearing, childrearing, and education." We should also figure out ways to effectively protect women's rights, help female workers achieve a balance between their families and careers, build a child-friendly society, and increase the willingness of young couple to have kids. As the average life expectancy increases, the workforce can be expanded by promoting flexible retirement policies. At the same time, we should aim to transform demographic dividend into talent dividend. Towards this end, we should increase investment in education and vocational training, increase policy inclination for the development of science and technology, incentivize scientific research, innovation, and talent capital accumulation, thus injecting a new momentum for China's socio-economic development. In short, China's population policy should be designed to cover the entire population and become more open and inclusive.

A New Direction in Population Policy in China

Wang Hui

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Interviewed by Kang Yingyue,
International Communications Officer of Taihe Institute

KANG China has relaxed its two-child norm and endorsed a three-child policy. What is China's demographic background for the policy shift?

WANG Based on the Seventh National Population Census report issued in May 2021, China's demographic outlook is rather an uncertain one as society faces increasing pressure caused by a shrinking and ageing population. China's population is also suffering from a biased gender ratio of male to female (113:100) where the male population is disproportionately more than the female one. The number of young people entering the labour force (age 20-24) has already peaked in 2010 and the total population will likely peak within five years as births drop. It is highly possible that this year China will see its population decline for the first time since the founding of the PRC, in terms of deaths exceeding births.

Currently, people above age sixty account for 18.7% of the population, indicating that China is rapidly entering a super-aged society where the elders (age 60 and above) make up over 20% of the Chinese population.

Improved public health has led to longer life expectancy and lower mortality rates. This, along with a falling fertility rate, are explanatory factors for China's ageing society. And among all these factors, the falling fertility rate is essentially the most instrumental one affecting China's future population growth.

Demographic reasons for China's decreasing fertility rate include a fast-shrinking population of women of childbearing age (between 15-49) declining at roughly five million each year, later marriages, older first-time mothers, and fewer

"The projection of China's demographic development in the future is dire...[but] early intervention with properly crafted policies could help prevent the worst scenarios from happening. "

married couples. The socio-economic implications include a shrinking labour force for future economic growth, dramatically reduced consumption, and a larger number of elderlies with increased financial and healthcare needs. Since 2010, China's economic growth has continued to slow, regressing to the mean, as the advantages of China's demographic dividend have begun to disappear. China is also in danger of "getting old before getting rich," namely that it enters an ageing society before becoming a high-income country.

The projection of China's demographic development in the future is dire. As predicted by the United Nations, China's population will stop growing in 2030 and halve by 2050. India will likely take over China as the most populous country in five years. However, the entire global demographic landscape is also bleak. Most countries are confronted with similar demographic challenges as their societies age and the number of working-age adults shrinks. Population growth in the United States and Europe has already stopped and many Asian countries are on the same trajectory. Currently, Africa is the only major region worldwide with a high fertility rate of more than five children per woman. By 2050, the African population will double to two billion, constituting about one-quarter of the world population. Although an exponential growth in population is guaranteed in this century, Africa faces the so-called youth bulge problem that often causes stability issues. Demography will certainly play a key role in geopolitics in shaping new political and economic realities. Yet, on the positive side, demography is more predictable than economic and political issues. Therefore, early intervention with properly crafted policies could help prevent the worst scenarios from happening.

KANG What are the reasons for this policy shift?

WANG The major policy shift already happened in 2015 when the two-child policy was fully open to encompass all families, signaling the ending of the over 30-year-old population policy. The change from the two-child policy to the three-child policy further confirms that the one-child population policy has been effectively abolished and was replaced by policies centering on families in order to increase

the total fertility rate and tackle China's rapidly ageing population and shrinking labour force. In essence, the policy shifted from a controlled to an open natalist model.

The three-child policy has been introduced as the momentum for couples to have the second child has begun to falter and the number of first babies dropping. China's most updated total fertility rate is 1.3 per woman in 2020, which is well below the ideal replacement level of 2.1 needed to keep the population from shrinking.

In practice, the two-child policy is merely a relaxation of the one-child policy without sufficient supporting policies to change the attitude of families, especially that of the newly married couples, towards their decision concerning childbearing. The name of the new policy, the "three-child policy" follows the existing nomenclature of the policy, that is from "one-child" to "two-child" to the current "three-child." The change of the name should not be over-emphasised as it is merely an alteration of a label. The core of the new policy lies in the forthcoming supporting policies centred around families.

China is not the first country that has changed its population policy. Singapore's shift from the population policy to the family policy happened in 1987 when the "Stop-at-Two" policy was replaced by the "Have-Three-or-More." However, the "Have-Three-or-More" was not successful as the fertility rate further declined and reached its historical low at 1.1 children per woman in 2020. This number is one of the extremely low fertility rates observed by the UN. In this regard, challenges for China's three-child policy are lying ahead.

KANG How well did the two-child policy work?

WANG The impact of the two-child policy was rather limited in its scale. It was temporary but it revealed the root cause of the declining population growth. It was observed that after the introduction of the two-child policy, there was an immediate surge in the growth of the second child, but the growth gradually slowed down. The staggering fact is that the two-child policy had little effect on the number of first births. On the contrary, it decreased at a yearly rate between 10-20% after the new policy was introduced in 2015. Therefore, the total fertility rate decreased from 1.7 in 2015 to 1.3 in 2020. This clearly suggests that the two-child policy did

not prevent the total fertility rate from falling.

In real terms, the introduction of the two-child policy did not come with a set of relevant policies, namely family policies specifically tailored to support various types of families to grow. One reason could be that the authorities were not fully prepared for such a policy shift, as China's growth has been facilitated by the demographic dividend for three decades. The concept of a comprehensive set of family policies that should be put in place to increase the fertility rate has been relatively new to the government. Therefore, not much has been changed in practice. Changes brought about were merely due to a relaxation of the single-child policy. This was partly the reason why the two-child policy was not proven to be effective.

Other main reasons that kept the fertility rate low include the changing composition of the population. Again, the cohort of women in the childbearing age is shrinking dramatically at around five million each year. The number of registered marriages, which is in positive correlation with the population of the first childbirths, is also on a declining trajectory. Moreover, the average age of marriages and that of the first mothers are becoming older as well. This demographic situation was overlooked when the two-child policy was introduced.

KANG What are the key objectives of the three-child policy?

WANG The goal of the three-child policy cannot be understood literally as to expect families to have three or more children. The number of women who have the potential to have a third child is only 20% to 30% of those who would have one child. Therefore, the expected increase in childbirth from this population cohort is marginal.

Ultimately, the three-child policy aims for increasing the fertility rate, securing the future labour force, and alleviating the burden of an ageing population on society. The key objectives of the three-child policy lie in the layout of the supporting policies that attempt to encourage families to have more children by reducing the costs of childbearing through providing specific social and economic support for eligible families. In particular, the complementary policies, which focus on several aspects such as housing subsidy, tax benefits, early childhood education

and care provision, maternity leave, and parental leave aim at alleviating the financial burden on families with children. These are not unique to China but are common areas of family policies that have been constantly implemented by governments of OECD countries as well. The broad objectives of the family policies include balancing work and family responsibilities, encouraging female labour participation, guaranteeing the financial sustainability of the social security system, promoting the healthy development of children, as well as gender equality.

KANG As observed in social media, many people have been skeptical about this policy shift, worrying that the new policy would still not be sufficient in addressing existing problems brought about by demographic change and lift the burden from families. How should we understand the potential social impact?

WANG China is not alone facing the demographic challenge. On the contrary, this is a global concern, especially in the large economies in Europe and Asia. Countries have to experience the so-called demographic-economic paradox when they reach a certain national income level. That is to say, at one point of development, rising income will have to be associated with falling fertility. Many countries have introduced and experimented with various family policies to address this issue. But most of the time, the policies have been unsuccessful in preventing the fertility rate from continuously dropping. This situation is certainly burdensome for many governments and policymakers across the continents.

Family policy is a long-term policy. Its impact on fertility rate is often complex and cannot be felt in a short period of time. Therefore, it is difficult for governments to assess the effectiveness of various policy instruments. The relationship between, for example, the family policies on maternity leave, paternity leave, the length of the parental leave, the amount of the child allowance, the provision and quality of the early childhood education and care facilities, and fertility rate are closely intertwined. They have

“Family policy is a long-term policy. Its impact on fertility rate is often complex and cannot be felt in a short period of time.”

mixed impacts on a family's decision about the size of the family, the child-bearing practice, as well as the female's participation in the labour market.

At the individual level, people are more concerned with factors affecting their daily lives. Stability of career and their financial situation, cost of living, work-family balance are just a few examples of what will be considered before making a decision about growing a family. In addition, decisions on when and how many children to have vary greatly across households and countries due to different family situations, social norms, and economic and political settings. It is rather an issue discussed in private space. Obviously, governments have no direct control over people's willingness to reproduce. In China, the ideal number of children is 1.8 per woman, but the actual fertility rate is 1.3 per woman. The challenge is how can the state help achieve this ideal size of family through the new family policies being put in place.

In summary, both the state and the individuals are uncertain about how the three-child policy will influence the future development of China's demographic transition. Whether people will become more confident about the new policy depends on how the family policies are designed and implemented. On a positive note, unlike the population policy which aims at controlling, restricting, and exercising authority, family policies tend to encourage, stimulate, and motivate family planning. Therefore, the shift from population policy to family-oriented policies intends to not force but connect with and support people.

KANG What are some safeguard measures to ensure implementation? How to balance the concern of individuals and the interests of the state?

WANG To understand the implementation of the newly designed family policies and the balance between the state and the individual, one should first look at the type of policies being employed for it helps to reflect on the traditional and cultural norms of the country. The social and cultural factors also have a general impact on people's response to the policy agenda itself since the childcare system constructed under the family policies connects the state with the individuals and binds men and women together in sharing responsibilities.

One example is Germany. Prior to reunification, West Germany employed the "male breadwinner model" in its family policies. The rationale of this model comes

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close to the Chinese traditional value, which determines that childcare is a private matter whose responsibilities should be borne by the individual households. The role of the state, on the other hand, is insignificant. Within this model, the former West German government carried out a set of policies intending to grant women a long period of time to take care of their children under three years old. However, they did not provide sufficient institutional care. Mothers were supposed to stay at home and look after their children until the age of three. Not surprisingly, the model had a negative impact on female labour participation, and it failed to reverse West Germany's falling fertility rate. However, after reunification, this familist model was gradually changed and was combined with the "dual-earner model" once adopted in former East Germany.[1] In 2002, a "sustainable family policy" that views children as future assets emerged to mitigate work-family conflicts and reduce children's poverty by supporting female labour participation. The "sustainable family policy" has been proven more effective for Germany: by 2016, Germany's total fertility rate climbed up to its peak at 1.59 children per woman.

One lesson that could be drawn from this example is that countries should carefully compare different models at the policy-design phase and choose the ones most appropriate for their own national situation so as to efficiently promote state-individual responsibility sharing in childcare and help people balance their work-family lives. Family-friendly policies that have been used extensively and proven more effective than other existing ones include, for example, affordable, high-quality early childhood education and care, paid parental leave, child allowance, and support for breastfeeding.

The Chinese government has already started to roll out some policy initiatives

1 Until 2016, the eastern part of Germany still had a much higher coverage in institutional childcare for children under three, which was 52% compared with only 27% coverage in the western region.

to help curb the cost of living for children's upbringing. These include providing housing subsidies for families with children and reducing the cost of education. The government also recognizes the importance of providing support for the "dual-earner" family through expanding the early childhood care for those under three years old, as well as safeguarding the legal rights of women in employment. Work-family balance is reinforced by the introduction of a more flexible parental leave, as well as paternity leave to encourage the participation of fathers in childcare, which will soon be piloted in Beijing. Child allowance is also being introduced in Sichuan and Gansu provinces.

Besides the existing policy instruments, understanding the complex relationship between fertility rates and various family policies is vital for the government to make decisions on policy combinations. For instance, child allowance and parental allowance generally have a positive impact on fertility: the more childcare facilities for under three-year-old children are provided, the higher the fertility rate. With policies balancing the work-family life in place, a higher female labour participation rate would supposedly be coupled with a higher fertility rate. Furthermore, experiences from the EU and OECD countries confirm that the most effective policy instrument is the expansion of early childhood education and care provision, especially for children under three years old. China's current coverage of institutional childcare facilities for children under three years old children is only 0.4%. In Germany, it is over 30% and in Denmark over 70%. This shows that China has ample room to grow in this area.

Equally important is to ensure sufficient government spending for families at various levels. In Germany, 2.82% of the GDP is spent on families in areas such as children allowance (Kindergeld), paid parental allowance (Elterngeld), public services and financial support for families provided through the tax system. This is the highest amount of governmental spending on families compared with all the other member states in the EU.

As China embarks on the journey of social policy reform for families, relevant research and data collection and update are indispensable to help policymakers understand the changing paradigms of the demography and assess the effectiveness of new policies.

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