Population Change and its Impacts on Potential GDP Growth Rate: Comparison between China and Japan

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Abstracts: Demographic change could influence a country’s potential growth rate by direct and indirect channel. The argument that demographic dividend diminished will reduce the potential growth rate has been estimated in a great many literature. China’s demographic has changing fundamentally based on the data of the 6th National Census. It shows the same demographic changing pattern as Japan’s in 1990s. We estimate the potential GDP growth rate for China and Japan separately. The findings are as follows: firstly, like Japan’s situation in 20 years ago, China’s potential growth rate will slow down in the very near future because of the changing demographic. Even relaxing the existing population fertility policy, China could not reverse the downward trend in the potential growth rate. China is still a middle income country when demographic dividend has disappeared in 2010. However, Japan has been a high income country in the transition point in 1990. This is the first big difference between China in 2010 and Japan in 1990. The second big difference is human capital in China in 2010 are lower than that of Japan in 1990. That means China has a risk so-called middle income trap. We should learn the lessons of Japan in the early 1990s, that is, Japan still insisted on using economic stimulus plans attempting to maintain economic growth when the demographic dividend has disappearance. Ultimately a so-called "lost decade" follows Japan’s economy after the economic bubble burst.

Keywords: Demographic Dividend, Potential Growth Rate, Population Dependence Ratio, Working Age Population

JEL codes: O47, J21, C53

I Introduction

As is well documented in the economics literature (e.g. Bloom and Williamson, 1998; Williamson, 1998), the demographic dividend is not derived from population size or the growth rate of the population, but from a specific feature of the population age structure. Simply put, an increase in the proportion of the working age population in the total population and a decline in the dependence ratio provide a country an

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opportunity to situate themselves so that a high savings rate, heavy investment and rapid economic growth can be obtained; the country thus benefits from the demographic dividend. There are many evidences of demographic dividend providing by the real economies of the world, e.g. Japan’s in 1990s. Fast growth of economics were driven by their demographic dividend, however, these countries did experience a "roller coaster" type of economic growth after the demographic dividend has disappeared.

The unprecedented economic growth in China over the past 30 years can be attributed largely to the demographic dividend. Mounts of literatures has refer that demographic dividend played the most part of attribution to the fast growth rate of economic in China. However, the population age structure is ever-changing. In fact, the process of demographic transition has taken place in China much more rapidly than anyone could have expected, and the number of people from ages 15 to 59 years has already decreased and the depend ratio has increased in 2011, and ages 15-64 years has already decreased in 2013 base on the 6th National Census data.

In fact, the fast changing pattern of demographic structure of China during the year 2010 to 2015 is similar with Japan’s situation in the 1990s. However, Japan has experience a so-called “lost decades” after the demographic dividend. Japan’s government ignored the demographic factor in the decreasing economic growth rate and still insisted on using economic stimulus plans attempting to maintain economic growth rate above the potential rate when the demographic dividend has disappeared. We should learn the lessons of Japan in the early 1990s, that is, economic stimulation plan only attribute the economic bubble when the demographic dividend has ended. It’s meaningful of our work to make a separate estimate on the potential growth rate in China and Japan. We try to find the common and different feature between China and Japan, and make a comparison between China in 1980-2030 and Japan in 1960-2010.

The potential GDP growth rate is determined by supply-side factors, including labor, capital, human capital, and total factor productivity (TFP). In a growth accounting equation, holding constant the labor force participation rate and the natural unemployment rate (i.e. the non-accelerated inflation rate of unemployment (NAIRU)), a changing demographic structure will through the directly and indirectly channel to reduce the potential GDP growth rate. The Directly Effects can be said as: the reduced supply of labor can deduce the decrease of employment and potential GDP growth rate when keeping other factor constant. The Indirectly Effects can be described as: firstly, the same as the natural rate of unemployment, the labor force
participation rate is a function of age. That means the labor force participation rate and nature rate of unemployment will not show a liner curve as changing as the demographic structure. The changed labor force participation rate and the nature rate of unemployment can deduce the decrease of employment and potential GDP growth rate when keeping other factor constant. Secondly, the capital stock is determined by the rate of capital formation of GDP, and the capital formation rate is also a function of age. The increase in the dependence ratio causes a decline in the savings rate and capital formation rate, which do not support the fast growth of capital formation. Therefore, holding the other factors constant, a reversal of the growth trend of the working age population and population dependence ratio in China will inevitably slow its economic growth.

China implemented the one-child policy in 1980. Aspect of the fast growth of the working age population, a decline in the dependence ratio (the ratio of the dependent population to the working age population) helps China to maintain a high savings rate and capital formation rate, which is the condition for capital formation; and an unlimited supply of labor prevents return on capital from diminishing, which allows heavy investment to be the main source of GDP growth (Cai and Zhao, 2012). However, China’s demographic structure changing dramatically after 2010, and this trend will not be reversed even if there is a moderate relaxation of the one-child policy.

This paper gives an estimation of China’s potential GDP growth rate from the year 1980 to 2030 and Japan’s from the year 1960 to 2010 by the growth accounting equation with human capital. We try to make attributions on five directions comparing to previous literature. Firstly, we add human capital in our estimation. Secondly, the potential growth rate is more sensitive to the demographic structure because the labor force participation and natural rate of unemployment is a function of age. Thirdly, we try to give a comparison between Japan and China and comparing the year 1990 in Japan and the year 2010 in China. Fourthly, the capital formation rate is considered as a function of demographic dependency ratio in our model. Fifthly, we use a unique data set provided by Guo (2013) who make a quite accurate population forecast by using the 6th national census data. The amount of population by sex and age is forecasted base on different hypothesis of TFR (The total fertility rate), e.g. TFR=1.6 (low scenario); TFR=1.77 (middle scenario); TFR=1.94 (high scenario); TFR=1.4 (baseline: the TFR is continued keep 1.4 until the year 2035 and than increase to 1.94). We forecast the potential growth rate of China during 2011 to 2050 by using the different population scenario.
Based on the latest population data, the present paper simulates a decline in the average potential GDP growth rate from 9.8 percent over the period from 1995 to 2009 to 7.75 percent during the 12th Five-year Plan period (2011–2015) and 6.70 percent over the 13th Five-year Plan period (2016–2020), and the potential growth rate of China may continue decrease to 3.14 percent in the year 2050. There also shown a decline in the average potential GDP growth rate in Japan from 4.5 percent in 1990 to less than 1.1 percent in 1995. In light of the properties of the potential growth rate and the experiences of China and the rest of the world, we make the following two suggestions which have been mentioned in Cai and Lu (2013).

First, the government should not seek an actual growth rate exceeding the potential growth rate. Because the potential growth rate is fixed by assuming full employment of existing factors of production, artificial stimulus aimed at lifting the actual economic growth rate above the potential rate would have unhealthy consequences. For example, frequently implemented stimulus plans could cause inflation; overactive industrial policies might result in overcapacity by inappropriately protecting inefficient enterprises and backward production capacity; and regional and industrial policies using heavy subsidies could lead to distortion of prices of production factors, and affect regional industrial structure by impacting comparative advantage.

Second, the potential growth rate can be enhanced through the application of measures to enlarge the supply of labor and capital, and to improve productivity. This requires deepening reforms in various areas, such as the household registration system reform and institutional reform. That is, economic reform is the key to sustaining China’s economic growth. Kharas (2011) points out that it would take 10 years or more for China to see any obvious effects of such reforms, which implies that the Chinese Government should waste no time in initiating urgent reforms, while being ready to accept lower growth rates. However, there exist reform opportunities that could enhance China’s potential growth rate fairly swiftly, which we discuss in the present paper.

II Method

1. Cobb-Douglass production function with human capital

We use a standard Cobb-Douglass production function to project potential GDP growth rate. In this paper, we also add human capital in our model.  

1 This method was applied both by Kuijs and Wang (2006) and Kuijs (2009) but without the human capital.
\[ Y = AK^a (hL)^{1-a} \]  

Where \( Y \) is real GDP, \( A \) is total factor productivity (TFP), \( L \) is employment, and \( K \) stands for capital stock (in constant price), \( h \) stands for human capital. We deduce the labor productivity by dividing \( hL \) on both sides of the equation (1).

\[ \frac{Y}{hL} = A(K/hL)^a \]  

In equation (2), labor productivity \( Y/hL \) (represented by \( y \)) is a function of the TFP and capital-labor ratio \( Y/hL \) (represented by \( k \)). That is \( y = Ak^a \). With some manipulation, labor productivity growth rate can then be rewritten and estimated form model (3):

\[ \frac{\Delta y}{y_{t-1}} = \Delta A / A_{t-1} + \hat{\alpha} \Delta k / k_{t-1} + \epsilon_i \]  

Estimating equation (3) and we get the estimated value of return to capital \( \hat{\alpha} \) and return to labor \( (1-\hat{\alpha}) \) by using \( \Delta y / y_{t-1} \) as the dependant variable and \( \Delta k / k_{t-1} \) as the independent variable.

From time series of \( \Delta y / y_{t-1}, \hat{\alpha}, \Delta k / k_{t-1} \), the growth rate of total factor productivity \( \hat{\alpha} \Delta A / A_{t-1} + \epsilon_i = \Delta y / y_{t-1} - \hat{\alpha} \Delta k / k_{t-1} \) could be estimated by using equation (3). And then, \( \hat{\alpha} \Delta A / A_{t-1} \) can be calculated by applying Hodrick–Prescott filter method to diminish error term \( \epsilon_i \).

2. from the growth accounting equation to the potential growth rate

All steps above are identical with the method which calculating the growth rate of total factor productivity. We need use potential employment \( L^*_t \) to calculate the potential GDP growth rate. Where \( L^*_t = population_{15+,t} \times Tr_{15+,t} \times (1 - NAIRU_{15+,t}) \), \( population_{15+,t} \) is the population aged 15 years above, \( Tr_{15+,t} \) is the trends of labor participation rate which can be estimated by the Hodrick–Prescott filter method, and \( NAIRU_{15+,t} \) is natural rate of unemployment.
Adding \( h_i L_i^* \) in our model and \( \Delta k_i^*/k_{i-1}^* \) and \( \Delta y_i^*/y_{i-1}^* \) can be obtained. The potential labor productivity growth rate \( \Delta y_i^*/y_{i-1}^* \) could be calculated as follows:

\[
\Delta y_i^*/y_{i-1}^* = \Delta A_i^*/A_{i-1} + \alpha \Delta k_i^*/k_{i-1}^* \tag{4}
\]

Where \( k_i^* = K_i/h_i L_i^* \), \( y_i^* = Y_i^*/h_i L_i^* \), and \( Y_i^* \) is just the potential GDP in year \( t \).

Building on \( \Delta y_i^*/y_{i-1}^* \) and \( h_i L_i^* \), we could deduce an equation as follows:

\[
\Delta Y_i^*/Y_{i-1}^* = (\Delta y_i^*/y_{i-1}^* + 1) \times (h_i L_i^*/h_{i-1} L_{i-1}^*) - 1 \tag{5}
\]

\( \Delta Y_i^*/Y_{i-1}^* \) is the potential GDP growth rate in year \( t \). From equation (4) and (5), there are four factors would influence the potential GDP growth rate. That is, potential growth rate of capital-labor ratio with human capital, potential growth rate of employment, potential growth rate of human capital and potential TFP growth rate.

We note that first three factors are all affected by the changing demographic. However, TFP growth rate is more related to the institutional factors, e.g. migration, \textit{Hukou} system, technical progress, etc. If the demographic contribution on a country’s economic growth can be called as "demographic dividend", then the contribution of TFP to economic growth can be called an "institutional dividend". In this present paper, we keep the institutional dividend as constant variable and than the forecasting potential growth rate can be estimated in China.

### III Data and estimate the missing data

1. \( Y \) and \( K \)

The data of GDP and capital stock are all pick up from Penn Table (PWT 8.0). We use the index of “2005 constant price US dollars” for GDP and capital stock. However, China’s capital stock during the period 2011-2030 is unknown for us. It’s necessary to estimate the missing data.

We know the capital stock is almost always constructed by the “perpetual inventory method”. The well-known equation is as follows:

\[
K_t = I_t/p_t + (1 - \delta_t) K_{t-1} \tag{6}
\]

where \( K_t \) is the measure of the real capital stock at time \( t \), \( K_{t-1} \) is the measure of the real capital stock at time \( t-1 \), \( I_t \) is the normal investment in time \( t \), \( p_t \) is the
price index of investment in fixed assets in time $t$, and $\delta_i (=5\%)$ is the rate of depreciation. We note that $K_t$ is a weighted sum of all past levels of investment and depreciated value of the initial real capital stock.

Capital formation of GDP is available in WDI database, and the capital formation is a function of population dependence ratio. The relationship between capital formation and population dependence ratio is as follows: $C_t = 62.733 - 0.399D_{t-1}$, which is estimated by the history data during the period 1980-2010 of China. Where $C_t$ stands for the ratio of current capital stock to one lag of GDP, and $D_{t-1}$ stands for one lag of population dependence ratio. It’s not difficult to estimate the capital formation and capital stock during the time period 2011-2050 based on Guo(2013)’s population forecast.

2. Population aged 15 years above, economically active population and employment

The historical population’s data is separately come from China Statistical Yearbook and Statistical Yearbook of Japan. China’s missing data in the period 2011-2050 is estimated by Guo(2013).

3. Labor force participation rate and the missing data for China

The labor force participation rate is calculated separately based on China Statistical Yearbook and Statistical Yearbook of Japan. China’s missing data in the period 2011-2050 is estimated by an alternative method. That is, the labor force participation rate is a function of age and sex. We obtain the labor force participation rate by sex and age of year 2010 based on the 6th national census data in 2010. The labor force participation rate can be obtained by adding the changing demographic of China in 2011-2050. The equation for economically active population is as follows:

$$\text{ACT}_{t,i} = \sum_{n=16}^{n=95} \text{population}_{n,i} \times \text{Part}_{n,i} \quad (i = 1, 2; \ 16 \leq n \leq 95)$$

$$\text{ACT}_t^* = \sum_{i=1}^{i=2} \text{ACT}_{t,i}^* \quad (7)$$

Where n stands for age ($16 \leq n \leq 95$), $i$ stands for sex ($i = 1$ male, 2 female), $\text{population}_{n,i}$ is the amount of population by sex and age in year $t$, $\text{Part}_{n,i}$ is the
labor force participation rate by sex and age in year $t$. $ACT_{i,t}^{*}$ stands for the total amount of economically active population by sex in year $t$.

4. Nature rate of unemployment and the estimation method

The nature rate of unemployment can not be found directly on the statistic year book or other kind of database. The common method to estimate the nature rate of unemployment is usually called triangle model which is an empirical relationship between inflation and unemployment. We use the same method and data in Du and Lu (2011). The natural rate of unemployment in Japan and China can be obtained.

5. The potential employment

We know that the natural rate of unemployment is a function of age. That means the potential employment can be obtained by the following equation:

$$L_{i,t}^{*} = \sum_{n=16}^{95} ACT_{i,n,t}^{*} \times (1 - NAIRU_{i,n,t}) \quad (i = 1, 2; \quad 16 \leq n \leq 95)$$

$$L_{i,t} = \sum_{i=1}^{2} L_{i,t}^{*} \quad (8)$$

Where $n$ stands for age ($16 \leq n \leq 95$), $i$ stands for sex ($i = 1$ male, 2 female), $ACT_{i,n,t}^{*}$ is the amount of economically active population by sex and age in year $t$, $NAIRU_{i,n,t}$ is the nature rate of unemployment by sex and age in year $t$. $L_{i,t}^{*}$ stands for the total amount of potential employment by sex in year $t$. $L_{i,t}$ stands for the potential employment in year $t$.

6. Human capital

The data of human capital are cited from Penn Table (PTW 8.0). Penn Table used the index of $hc$ as the variable of human capital. According to the same method the missing data in China during the period 2011-2050 can be estimated.

**IV Estimation of the Potential Growth Rate in China**

1. Growth accounting equation and the estimation results

The Parameter of return to capital is equal to 0.502 for China and 0.781 for Japan by using the OLS estimation method in the different time period. The share of factor is stable in the long-term for a country, however, it’s has a huge difference between
the countries (Gollin, 2002).

Table 1  
Estimation results based on growth accounting equation

<table>
<thead>
<tr>
<th>Parameter estimation</th>
<th>$C$</th>
<th>$\Delta k/k$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>China: 1980—2010</td>
<td>0.038 (0.011)***</td>
<td>0.502 (0.148)***</td>
<td>0.284</td>
</tr>
<tr>
<td>Japan: 1960—2010</td>
<td>-0.007 (0.006)</td>
<td>0.781 (0.099)***</td>
<td>0.566</td>
</tr>
</tbody>
</table>

Note: ( ) stands for standard deviation.


Based on the assumptions made above on the decline in the labor force and TFP growth, we can estimate the potential growth rate of the Chinese economy for the period of 2011 to 2030, and estimating the potential growth rate of the Japanese economy for the period of 1960 to 2010 and the potential growth rate of the Chinese economy for the period 1980 to 2010 by using the historical data. Our finding that the potential growth rate of China will decline and the trend will continue is not surprising, because many others have reached the same conclusion (e.g. Kuijs, 2009; World Bank, 2012). However, our predicted potential growth rate is much lower than that estimated by others (e.g. see Kuijs, 2009).

Table 2  

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<tbody>
<tr>
<td>China: 1980-2030</td>
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<tr>
<td>Actual growth rate</td>
<td>9.20</td>
<td>10.46</td>
<td>10.48</td>
<td>7.75</td>
<td>6.70</td>
<td>5.95</td>
<td>5.47</td>
<td></td>
</tr>
<tr>
<td>Potential growth rate</td>
<td>9.92</td>
<td>10.37</td>
<td>10.67</td>
<td>0.33</td>
<td>-0.14</td>
<td>-0.46</td>
<td>-0.62</td>
<td></td>
</tr>
<tr>
<td>Potential employment growth rate</td>
<td>3.37</td>
<td>1.67</td>
<td>1.10</td>
<td>2.37</td>
<td>2.37</td>
<td>2.37</td>
<td>2.37</td>
<td></td>
</tr>
<tr>
<td>TFP growth rate</td>
<td>4.01</td>
<td>3.66</td>
<td>3.72</td>
<td>9.31</td>
<td>7.92</td>
<td>7.01</td>
<td>6.53</td>
<td></td>
</tr>
<tr>
<td>$K/hL^*$ growth rate</td>
<td>2.67</td>
<td>6.57</td>
<td>9.46</td>
<td>2.37</td>
<td>2.37</td>
<td>2.37</td>
<td>2.37</td>
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<tr>
<td>Japan: 1960-2010</td>
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<td></td>
</tr>
<tr>
<td>Actual growth rate</td>
<td>12.95</td>
<td>4.50</td>
<td>4.64</td>
<td>1.42</td>
<td>0.85</td>
<td>1.20</td>
<td>0.35</td>
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<tr>
<td>Potential growth rate</td>
<td>11.71</td>
<td>5.81</td>
<td>4.43</td>
<td>1.97</td>
<td>0.77</td>
<td>1.08</td>
<td>0.47</td>
<td></td>
</tr>
<tr>
<td>Potential employment growth rate</td>
<td>1.38</td>
<td>0.93</td>
<td>1.19</td>
<td>0.96</td>
<td>0.13</td>
<td>-0.35</td>
<td>-0.21</td>
<td></td>
</tr>
<tr>
<td>TFP growth rate</td>
<td>2.25</td>
<td>-1.63</td>
<td>-0.39</td>
<td>-1.88</td>
<td>-1.44</td>
<td>0.02</td>
<td>-0.12</td>
<td></td>
</tr>
<tr>
<td>$K/hL^*$ growth rate</td>
<td>9.85</td>
<td>7.34</td>
<td>3.96</td>
<td>2.63</td>
<td>2.04</td>
<td>1.21</td>
<td>0.46</td>
<td></td>
</tr>
</tbody>
</table>

Note: the estimation results are estimated by the growth accounting equation.
The potential GDP growth rate we estimate is 7.75 percent for the 12th Five-year Plan period and 6.70 percent for the 13th Five-year Plan period, however China’s potential growth rate has reached to nearly 11 percent from 2001 to 2010 (Table 2). Japan’s potential growth rate has slowed down from 4.43 percent to 1.97 percent during the demographic transition period from 1990 to 1995. We do not consider our conclusion as any exaggeration, given that we have not taken into account the inevitable slowdown of mass labor migration from agricultural to non-agricultural sectors, which has been the main source of TFP growth (see Fig.7).

V China 1980-2030 vs. Japan 1960-2010: Similarities and Differences


   (1) The total population, population structure and dependency ratio: We found that both Japan and China, population structure for China and Japan has undergone fundamental changed after 2010 and 1990, but the total size of the population continued to increase after that time point, and changing exhibits similar characteristics: Japan's total population decreased after the year 2007, and China’s total population will began to decline after 2023 (see Figure 1). That illustrates the demographic dividend has nothing to do with the total population size.

![Fig.1 Total Population Trends: China 1980-2030 vs. Japan 1960-2010](image-url)
Fig. 2  Demographic change 15-64: China 1980-2030 vs. Japan 1960-2010
Fig. 3  Total Dependency Ratio 15-64: China 1980-2030 vs. Japan 1960-2010

(2) Labor force participation rate and economically active population: Japan's
total labor force participation rate showed a downward trend after 1990. The trends of China's labor force participation rate will decrease after 2010 which is very similar with Japan’s (see Fig.4).

Although China's population structure has been changed in 2010, the economically active population will not reach a peak until 2016. This is very similar to Japan, although Japan's demographic transition occurs from the period 1990 to 1995 the economically active population reached its peak in 1998 (see Fig.5).

(3) Potential employment: Potential employment is a key factor in determining potential economic growth. We find the potential employment will show a down trend in China in 2016. Japan’s potential employment has shown the down trend after 1998 (see Fig.6).

Fig.4  Labor Force Participation Rate: China 1980-2030 vs. Japan 1960-2010
Fig. 5  Economically Active Population: China 1980-2030 vs. Japan 1960-2010

Fig. 6  Potential employment: China 1980-2030 vs. Japan 1960-2010
(4) Potential economic growth rate: Japan has three characteristics when the demographic dividend weekend from 1990 to 1995. That is, reducing the absolute number of working-age population, the population dependency ratio rises and capital formation rate has dropped. After that, the potential growth rate declined rapidly after 1990. China has the same characteristics during the period of 2010-2015. The China’s potential growth rate has shown a sharp decline after 2010 because of the demographic dividend disappeared (see Fig.7).

![Fig.7 Potential economic growth rate; China 1980-2030 vs. Japan 1960-2010](image)


China's per capita income is $8,579 (2005 constant US dollar) in 2010, which is far lower than Japan in 1990. Japan’s per capita income level is about $27,039. It can be said that although a similar trend of economic growth between China and Japan, due to the large amount of population, China is still in the middle-income level. However, Japan is a high income country in the 1990s when the demographic has changed. In fact, the ultimate goal of economic growth is not the economic growth but the income level. We find that Japan's per capita GDP is $31,437 in 2010 (in 2005 constant US dollar), while China's per capita GDP will be $27,073 in 2030. The gap between the two countries will decrease.
VI. Conclusion and Policy Implications

As a result of the changes in the population age structure, the working age population (aged 15 to 64 years) stopped growing in 2013. Chinese economy is entering a phase of transition from dual economy development to neoclassical growth. The transition is very similar with Japan’s in 1990s.

According to the neoclassical theory of growth, it is unlikely that developed economies can realize growth rates comparable to their developing counterparts, still in the process of catching up. Accordingly, fast growth will eventually slow down as an economy moves to a certain turning point, as experiences worldwide suggest (Eichengreen et al., 2011).

China’s potential growth rate will slow down in the very near future because of the changing demographic. Japan has shown a similar demographic transition in the past 20 years. We also find that even relaxing the existing population fertility policy, China could not reverse the downward trend in the potential growth rate (see Fig.8). China is still a middle income country when demographic dividend has disappeared in 2010. However, Japan has been a high income country in the transition point in 1990. This is the first big difference between China in 2010 and Japan in 1990. The second big difference is human capital in China in 2010 are lower than that of Japan in 1990 (see Fig.9).

Fig.8 China’s potential growth rate under different total fertility rate: 2011-2050
However, there is no need to fear the slowdown of the potential growth rate. The new stage of development requires China to accomplish a fundamental transformation of its economic growth pattern from sole reliance on inputs of capital and labor to greater improvements in TFP. Therefore, the key to sustaining economic growth through expanding the potential growth rate lies in supply-side factors. If the government policies wrongly focus on stimulating demand-side factors to reach a growth rate exceeding the potential capacity of production, long-term economic growth will not be healthy and will cause distortions. Instead, sound policies should be implemented bearing the following in mind.

First, the central and local governments should accept slower economic growth. Policy decisions should be made by adjusting supply-side factors rather than demand-side factors. Even an undesirable fall in the growth rate caused by shocks from demand-side factors should not be a reason for policy-makers to introduce expansionary macroeconomic policy measures. Instead, policy-makers need to determine whether growth rates have been reduced to below-potential levels. If this is not the case, a situation where export demand and investment demand are weak could be taken as a chance for the economy to accelerate its transition towards a consumption-driven pattern and to grow in a more balanced manner.
Second, economic reforms should modify the traditional growth pattern. Reforms have been a major driving force of the unprecedented economic growth over the past 30 years. A competitive environment is vital for enhancing the potential growth rate in China over the next decade or so.

Reference:


Kuijs, Louis and Tao Wang., “China’s Pattern of Growth, Moving to Sustainability and