Policy recommendations

- 1. Labor productivity growth and job creation for all working age groups should be the most important direction for further promoting the positive impact of population age structure changes on economic growth, ensuring "demographic window of opportunity" is transformed to "population dividend". This is very important in the context of rapid population ageing in Viet Nam.
- 2. The impact of population ageing on economy will become more apparent in Viet Nam in the near future. The government needs to have appropriate policies to fully utilise those with working capacity in this group in order to increase their income and decrease deficit as much as possible. At the same time, Viet Nam needs appropriate healthcare and social protection policies and models in response to this generation.
- 3. Vocational training and career guidance should be provided to young people so that they are geared towards competitive industries and occupations that will create sustainable jobs in the context of increasingly intensive and extensive international integration. A "life-long learning" strategy should be seriously taken forward through various programmes so that different labor groups, especially those with limited access to education, can participate in skill development necessary for their jobs.
- 4. The labor mobility plays an important role in changing the labor productivity within an industry in particular and in the entire economy in general. This implies the importance of training for improved skills, qualifications, and effective policy for labor distribution to industries, especially those with comparative advantage, which will in turn accelerate job generation, will improve productivity and growth of the entire economy. From the industry's perspective, agro-forestry and fisheries are

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always behind in terms of productivity as compared to industries such as construction and service sector. Strategies, policies and programs to improve productivity in rural areas and in agro-forestry and fisheries sectors are important and necessary.

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IMPACT OF CHANGES IN POPULATION AGE STRUCTURE ON VIETNAM'S ECONOMIC GROWTH AND POLICY RECOMMENDATIONS

EXECUTIVE SUMMARY

Key findings

- The population aged 23-53 have labor income to be higher than consumption, thus they create savings that can be ploughed back/reinvested into the economy to stimulate economic growth.
- If the contribution of labor in the total added value (total labor income) grows by 1.28% per annum during 2016-2049, the period of the "population dividend" shall last until 2042.
- Estimation based on provincial data shows that if the working age population increases by 1%, GDP growth rate will be up by 0.5%.
- If labor productivity is not increased, changes in population age structure towards aging would reduce GDP per capita growth rate, especially from 2017 onwards.

Viet Nam has been experiencing a profound population transition over the last few decades. The country entered the period of the "demographic window of opportunity" with a large young labor force and the stage of "aging population" at the same time. These demographic changes suggest that appropriate strategies and policies

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are needed for taking advantage of population changes for economic growth while eliminating any possible negative impact. The study "Impact of Changes in Population Age Structure on Vietnam's Economic Growth and Policy Recommendations" was thus undertaken with the following purposes: (1) analyzing economic aspects of the "demographic window of opportunity" period using the "National Transfer Accounts" (NTA) method: (2) evaluating impact of population age structure changes on economic growth as well as on sectoral labor productivity; (3) assessing impact of labor mobility within and between sectors on labor productivity of sectors and of entire economy; (4) Based on the results, proposing some policies for harnessing the "demographic window of opportunity" for economic growth and development in the future. The study key findings are as follows:

Population dividend¹ in Viet Nam. Using the NTA method, the study estimates labor income and consumption of the Vietnamese.² The results (Figure 1) show that the Vietnamese starts earning labor income at age 14. During the lifecycle, income from labor increases from the age 14 to 31, then starts declining until the age 51, falls sharply from age 51 to around 70 and reaches 0 at the age 90. Consumption varies a lot by age too. In particular, consumption for health care of people aged 55-77 are twice as much as that of people aged 0-15. Consumption for education increases until it reaches its peak at age 22 then declines until age 34 where there is virtually no longer consumption for education. It can be seen that household consumption for education and health care accounts for a large proportion while government spending - although increasing in recent years - is still very modest.

Figure 1. Labor income and consumption per capita in 2012

Unit: VND 1,000/year

60,000 -50,000 -40,000 -30,000 -20,000 -10.000 70 80 90+ 10 40 50 60 20 30 - Consumption 2012 - Labor Income 2012

1 According to the NTA, a country is considered to achieve demographic dividend when the growth rate of the economic support ratio (ratio of total income of the entire economy by age group to total expenditure of the entire economy by age group) is greater than zero.

2 The study used data from the Viet Nam Household Living Standard Survey (VHLSS) 2012 and the Input-Output Table 2012. In this study, labor income included salary and labor portion from self employment income.

Figure 1 also shows that the people aged 23-53 have labor income higher than consumption, thus creates savings which can be ploughed back/re-invested into the economy and thereby stimulate economic growth. The results from the VHLSS 2012 show that the population aged 23-53 generates a surplus of VND 632 trillion while those aged 0-23 and 54 and older generate a deficit of approximately VND552 trillion and VND189 trillion respectively. For the entire population, the deficit is about VND109 trillion (Figure 2).

Figure 2: Projection of the life-cycle surplus and deficit by age group, 2015-2049

Unit: million VND



To cover this deficit, the surplus generated by the population aged 23-53 shall be partly shared, and the remaining gap shall be covered from government and households transfers and from assets. Due to rapid population aging in the coming years, when the deficit generated by older population will continue to grow, and the government shall face great challenges in providing social security.

Assuming that the structure of per capita labor income and consumption by each age in 2012 are held constant and that labor productivity remains unchanged, the population age structure changes have positive impact on the economic support ratio only until 2018. In other words, using the NTA method and the stated assumptions, Viet Nam can enjoy the "demographic dividend" period only until 2018.

"Demographic dividend" can be extended

if labor productivity increases. In order to extend the "demographic dividend" period, the study simulates changes in productivity and indicates that the contribution of labor to total value added (or gross labor income)

must increase 1.28% per annum during 2016 - 2049 instead of 1% per year as in the 2010-2012 period: then the period with the growth of economic support ratio greater than 0 will last until 2024 (instead of 2018 as in statusguo estimates). In addition, assuming that the growth rate of economic support ratio will be slower but maintained a minimum rate of 0.6% per annum during the remaining period (2025-2049), the "demographic dividend" period may appear again for the period from 2030 to 2042 (Figure 3).

Figure 3. Growth rate of economic support ratio when labor productivity remains unchanged and changed (%)



Changes in population age structure and working population age structure may lead to positive impact on economic growth. Changes in population age structure and increase in working age population have positive impact on GDP per capita growth, but the impact vary

visibly depending on the trend of population aging. Using the population projections for the period 2014-2049 by GSO (2015, forthcoming), the study simulates the impact of population age structure changes on economic growth for the period 2010 -2049 and indicates that if labor productivity remains unchanged, population aging will reduce GDP per capita growth rate, especially from 2017 onwards.

The model estimating the impact of changes in working age population on economic growth at provincial level indicates that if the working age population increases by 1%, GDP growth rate will be up by 0.5%.³ In addition, the number of employed workers in both young age group (15-





59) and the older group (aged 60 and above) will have positive impact on economic growth at provincial level: for every 1% increase in the employed population aged 15-59 and 60 and over, GDP would increase by 0.36% and 0.32% respectively.

Increased number of young workers has positive impact on the growth of all key sectors. The model estimating the impact of working age structure changes on sectoral economic growth shows that in the period of 2010-2012 the increased share of young workers has positive impact on the growth of almost all sectors under the study.⁴ For example, in manufacturing sector, if the share of workers aged 15-34 and 35-55 respectively increases by 1%, the growth rates of this sector will be increased by 0.34% and 0.31% respectively. The impact of the share of near old workers (56-60) varies depending on sectors. For example, growing share of this group reduce the growth of agriculture, forestry and fisheries, but increase the growth in manufacturing industries and trades.

Contribution of labor structural transformation to labor productivity growth is mainly attributed to labor mobility from low-productivity to higher productivity sectors. During 2001-2012, average increase in labor productivity was 5.28% per year, of which a contribution by intra-industry's productivity change was 2.8 percentage points and by labor structure transformation 2.48 percentage points. We can see that labor structure transformation has helped reallocating resources more effectively, and serving as a driver for increasing labor productivity.

³ Data from the statistic year books (GDP, population size, investment capital by provinces), proportion of working population estimated from the Annual Labour Force Surveys.

⁴ Using data from the Enterprise Surveys, period 2010-2012. Studied sectors included: Agro-forestry; Fisheries; Mining; Manufacturing; Production and distribution of electricity, gas, fuel; Construction; Trade; Hotel and food catering; Transportation and Storage.