Thesis Proposal Draft

**Abstract:** The topic of this thesis proposal is: No time to consume? The relationship between people’s time use strategy and their consumption. The proposal concerns the relationship between the leisure time of people and the consumption , which pursues to clarify whether the limitless overwork has no harm to sustainable economic growth and labor efficiency. And the hypothesis in this proposal is that with similar per capita income, people’s cunsumption shows significance difference when the leisure time changes. To verify the research question, 4500 observations from IMF, OECD Time Use Database, China National Bureau of Statistics and Total Economy Database are collected. Then the transformation of hours worked data to leisure time data and the group division based on per capita income are applied to operationalize the hypothesis. In the literature review part, Wei Xiang’s quantitative research clarifies different types of leisure participation and uses the regression models to justify that the human capital accumulation affect by more active leisure participation such as exercising and socializing, which can promote the labor efficiency and economic growth. Other theoretical literature, however, points out the worker also have consumption to show off or compensate their mood despite less leisure time. The controversy’s justification is the hard problem and also main contribution of this proposal. (Hou, Literature Review\_ZhengzeHou, 2021) The main quantitative method of the thesis is multilinear regression separated by the level of per capita income, the continent and the time period. RD(regression discontinuity) design is also applied to find whether there exists the obvious gap between the developed and developing countries or other cutoffs. Finally, better classification of development level of different countries and direct survey of leisure time will make the research more improved. (Hou, Research Strategy\_ZhengzeHou, 2021)

Introduction

The topic of this thesis proposal is: No time to consume? The relationship between people’s time use strategy and their consumption.

The household consumption plays a big role in the GDP measurement, and it is directly produced by people’s purchase behavior. However, people may also change their purchase behavior because of some factors such as lack of leisure time due to overwork. Thus, the concern about the relationship between the leisure time of people and the consumption (household consumption every year here) pursues to clarify that only from a directly numerical perspective, whether the limitless overwork has no harm to sustainable economic growth and labor efficiency. Based on this concern, the research question is put forward that if leisure time is seemed as a period to consume, what its length will affect the amount of consumption. We expect to find that if people have more leisure, even though they don’t have more money, whether they will have more opportunity to consume because they tend to make more consumption to lift up their life quality. (Hou, Literature Review\_ZhengzeHou, 2021)

Literature Review

Based on this consideration mentioned above, Wei Xiang has pointed out that there exists different types of leisure participation. The active leisure participation such as socializing and exercising, and the passive participation such as watching TV and Internet surfacing.(Wei, Huang, Stodolska, & Yu, 2017) The former could advancing people’s human capital which could promote the economic growth, and the latter could promote people’s happiness.

His data source includes the World Bank, OECD, UNESCO. The former two database will be also used in this proposal. But the specific data selected will be a bit different. To make up of the lack of data from China, Wei exploits the Yearbook of the National Bureau of Statistics as well as Ministry of Human Resources and Social Security of China. The selected countries are US, Japan, China, and the time ranges from 1980 to 2011. The regression models are the main methods, and missing data of China is treated by using within-group mean method.

As a result, Wei’s article shows that labor efficiency would be promoted along with the more leisure time people had in Japan, America and other developed countries. The more leisure time did not have a positive effect on China’s labor efficiency because of the majority of Chinese’ leisure participation is passive. (Wei, Qu, & Ma, 2015) His another article further points out that China is on the process of industrialization and the main economic growth’s source is investment, which implies the human capital accumulation by improving individual’s intelligence, creativity and learning capacity didn’t play a big role at that era.(Xiang Wei, 2009)

Wei Xiang’s research is the main source this proposal referred to. But the data has been outdated after ten years’ development. And it didn’t directly research the household consumption as an important index of economic growth, instead focus on the human capital accumulation. The household consumption’s definition contains both the activities of passive and active leisure participation. Thus, the effect of leisure time and economic growth will be measured more directly by collecting the data of household consumption every year.

There are also some articles about the workers’ psychological mechanism between leisure time(or reversely, overwork) and consumption could explain the cause after gaining the result. The pursuit of relative status signaled as extravagant goods by consumption may lead to worker’s motivation of overwork.(Golden, 2008) The conspicuous consumption also implies similar opinion.(SILVIA BELLEZZA, 2016) People may also just purchase more to compensate their mood because of lack of time to make use of these goods, which is defined as inconspicuous consumption.(Gershuny, 2004) Furthermore, leisure and consumption are political and thus lack of “consumer sovereignty”.(Rojek, 2006) However, these explanations are more theoretical than quantitative research. Thus it could be supplemented and falsified by this proposal.

The most controversial thing in these literature is that Wei’s finding points out the positive relationship between leisure time, especially active leisure participation, and economic growth. This might also be verified by measuring the household consumption as a part of economic growth. But the theoretical literature more addresses that even without the more leisure time, people tend to consumption to “show off” or just as a compensation effect. Considering of the confounding effect of economic index such as GDP per capita, the results might still be controversial. This is the main shortcoming but also the main finding of the proposal. (Hou, Literature Review\_ZhengzeHou, 2021)

Theory

The hypothesis in this proposal is that with similar per capita income, people’s cunsumption shows significance difference when the leisure time changes.

Thus, the dependent variable here is the household consumption grouped by development of countries in the framed time period. And the independent variable is the mean leisure time people own every year grouped by development of countries in the framed time period. Development of countries here is defined as the per capita income of poeple in different countries.

To operationalize the hypothesis, the first step is to transform the hours worked into the leisure time. The total hours per year minus the collected hours worked data leads to the result. And the second step is to classify the groups of “similar per capita income”. The per capita income will be divided by 1000 to make it smaller. And then the countries whose per capita income’s difference is smaller than 0.2 will be classified into the same group.

There are two potential variables which may confound the analysis. The most apparent variable is the income people own every time period, which is a direct variable to influence the consumption of people. Although I have separated the countries to different groups to decrease the per capita income’s influence, it might still disturb the result to some extent.

Another variable is the event such as 2008 financial crisis or Covid-19 pandemic. I suppose in long time period the relation between consumption and leisure time will decrease the normal business cycle’s perturbation, but these big events may still have important affect.

If the dependent variable doesn’t show significant difference or show that people tend to increase their consumption if they have less leisure time , the hypotheses will be falsified. This outcome might demonstrated that people will make up for their unhappiness by consuming more, or they just don’t need to consume anything to make their leisure time’s quality higher. (Hou, Hypothesis Proposal\_ZhengzeHou, 2021)

Research Strategy

1. Data

The leisure time of people and the household consumption across the world these decades are necessary data. The per capita income of these countries in the same time period is the control condition.

The data used in the article mainly comes from four sources. The data of per capita income and household consumption of different countries are collected from IMF data. The data of leisure time can be directly used in OECD Time Use Database, but it just has the latest year’s data. Instead, I plan to use OECD’s Hours worked data, which has a time period dimension and contains more countries. OECD’s hours worked data lacks China and some developing countries’ data, which could make the results unconvinced, so I suppose to gain further data from China National Bureau of Statistics and Our world in data website, whose data comes from Total Economy Database. The data collected contains all the required variables, which will make the research process goes more smoothly.

Moreover, US Bureau of Labor Statistics Data has a detailed local leisure time use data, which contains gender variables and variables of different activities such as watching TV or socializing and communicating. A case study based on gender and the type of leisure time is supposed to conducted as an extension.

Until now, 50 countries, including 43 countries in OECD’s hours worked data are collected. The number of developed and developing countries are similar. And the per capita income every year, household consumption of these countries are also collected. The units mentioned above are measured from 1990 to 2020. Thus, the observations in this part are about 4500. OECD’s time use database and US Bureau of Labor Statistics Data has a gender catetory. US time use survey is held every year. And OECD has about 20 countries in the time use database in latest year’s survey. So there will be 100 observations in this part. (Hou, Data Description\_ZhengzeHou, 2021)

1. Method

The main quantitative method used in the proposal is multilinear regression. With and without the control of per capita income, the trend between household consumption and leisure time will be found separately. With the control of per capita income, both the rough classification of developing and developed countries and detailed classification based on the per capita income difference will be applied. After that, the multilinear regression is also applied based on different continent such as Europe and Asia, and different time period such as 1990-2000 and 2010-2020. The RD(regression discontinuity) design method is also considered to be apply. And the cutoff will be the traditional threshold between the developed and developing countries. Finally, the extension case study will be mainly a descriptive research. There will be a regression of leisure time and consumption based on different gender.

There are still two problems within the research. The first is that in which way the per capita income’s impact will be controlled better. The separation of countries of different level of development is the plan now. But there might exist other better technical measurements. At least the optimization value of classification should be found (now the value is 0.2k). Another thing is that the leisure time’s definition now is the whole hours a year minus average annual hours worked. Theoretically speaking it is applicable, but direct survey of leisure time will be better. (Hou, Research Strategy\_ZhengzeHou, 2021)

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