DID HAFIZ PROGRAM STIMULATE SPENDING? EVIDENCE FROM BENEFICIARIES SURVEYS

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ABSTRACT

The paper investigates the effect of Hafiz (Hafiz is a government-funded program to provide the unemployed Saudi job-seekers with financial incentive in order to support and motivate them to get a permanent job) on the beneficiaries' consumption tendency and ultimately on Saudi Economy (SE). To this end, a dynamic consumption model is estimated using partial adjustment hypotheses and the data from 952 Hafiz beneficiaries of the period between June 2012 and January 2014. The paper finds that the Marginal Propensity to Consume (MPC) is 0.73 which means that each Riyal that a Hafiz beneficiary gets tends to generate the economic output of SR 0.73. Therefore Hafiz's yearly disbursement of SR 2.69 billion adds more than SR 1.97 billion to SE. The paper concludes that Hafiz not only supports and motivates the unemployed Saudis to build up their career but also boosts SE by creating a powerful multiplier effect taking the advantage of the beneficiaries' high consumption tendency.

KEYWORDS: *Saudi Arabia, Hafiz Program, Marginal Propensity To Consume, Employment, Consumption*

INTRODUCTION

The real effects of social insurance on consumption have received attention from economists in the last four decades. In the area of unemployment insurance, though most of the attention has been given to the secondary issue of the duration of workers' unemployment, a few studies find that unemployment insurance stabilizes employment. For example, Burdett (1979) asserts that unemployment benefits motivate the unemployed citizens to build up their career instead of alluring them to remain unemployed. In the same vein, Saudi Arabia considers the impact of unemployment benefits positively and tries to help its citizens in a number of ways. At the end of 2011, one of the state agencies— Human Resources Development Fund (HRDF)—launched a program called Hafiz in order to provide the job-seekers with financial help and to motivate them to try to get permanent jobs. Under this program each beneficiary got SR 2,000 ($533) per month (Al Jassem, 2011). According to HRDF, in the month of October 2012 approximately 1,365,391 Saudis received the said amount of money. Of course, the number varied from month to month as the beneficiaries entered and exited the program due to their gaining and losing the eligibility of receiving the benefit (Banque Saudi Fransi, 2011).

The public response to the unemployment benefit from Hafiz scheme has been overwhelming. More than two million people applied for getting the unemployment benefit (HRDF, 2012) out of which only 1, 365, 391 (70% of them are women) were considered to be eligible to be the beneficiaries (Ghafour, 2011; Jago, 2012). It means the rest of the applicants applied even though they were ineligible. The paper finds that the beneficiaries'

consumption is positively correlated with the amount of money that they get as unemployment benefit. In other words, the unemployed Saudis tend to spend more on consumer items when they start getting the Hafiz benefits.

Hafiz has been depositing a sum of SR 2.7 billion per month to the beneficiaries' accounts since January 2012 which means the total amount of money deposited per year was 32.28 billion. It is to be noted here that some sections of people were considered to be more eligible than others. In terms of regions, the people from Makkah, Riyadh, Eastern, and Asir provinces were considered to be more eligible than others and in terms of sex, the female citizens seem to be more deserving than their male counterparts to get the financial assistance from Hafiz. For example, at the end of 2013, the female citizens constituted 71% of the total number of beneficiaries (Al Jassem, 2011).

LITERATURE REVIEW

In the following, after giving a brief description of Hafiz, I will review the conceptualizations of MPC and the related studies.

HAFIZ PROGRAM

Saudi government has undertaken some labor market nationalization policies with a view to decreasing the foreign labor dependency in the long run. However, demographic and labor market patterns in Saudi Arabia are increasingly perceived as economically problematic in one way or the other. Currently, Saudi government provides the citizenry with socio-economic protection in a number of ways—for example there are privileged public employment and subsidized cost-free public services exclusively for the Saudis. According to Saudi Labor Ministry, unemployment costs the government SR 5.5 billion a year as around 90 percent of working Saudis are employed by the government, while around 8 million foreigners occupy 90 percent of jobs in private companies. When unemployment rate in Saudi Arabia went up, government formulated new policy to launch Hafiz to provide the Saudis with financial support for the temporary job-seeking period (Al Jassem, 2011). Hafiz not only gave the unemployed people the financial support but also created a database regarding the statistics like male/female, educated/non-educated, educated male/ educated female ratios among the unemployed Saudis.

MARGINAL PROPENSITY TO INCOME (MPC)

The issue of the MPC has attracted the attention of economists and policy makers as it is believed that it determines the efficacy of a fiscal policy aimed at boosting consumption. The basic definition of MPC in the short-run is the additional consumption spending which happens when consumers experience a one dollar increase in disposable income. It is the slope of the consumption function.

CORRELATION BETWEEN UNEMPLOYMENT BENEFIT AND LABOR MARKET

The effect of unemployment benefits on labor market dynamics has attracted much attention in the last four decades. The standard framework of analysis is based on models of job search (e.g., Mortensen, 1977; Devine and Kiefer, 1991; Lippman and McCall, 1976). In a theoretical study, Marimon and Zilibotti (1999) suggest that in a labor market with search resistance, unemployment benefits tend to reduce job mismatch. They show that unemployment benefits help unemployed to find jobs that match their skills better and to last them as employee for a long time. Burdett (1979) states that the benefits which are seen as a "search subsidy" lower the opportunity cost of job search giving time to the unemployed to find not just a job, but "the right job". Acemoglu and Shimer (2000) show in their model that unemployment benefits encourage risk-averse people to search for higher productivity jobs and provoke the firms to create these jobs, and thus the unemployment benefit systems engender productivity gains. Otherwise, an unemployed person without benefits might accept unsuitable jobs. Nevertheless, Centeno and Novo (2006) find that because of unemployment benefits, job seekers may also take jobs that incur higher risk of job instability i.e. potentially bad matches that bring upon shorter employment duration. They show that unemployment benefits increase both the expected starting wage and job tenure. Van Ours and Vodopivec (2006) use Slovenian data and find that a shorter potential benefit period not only increases the exit rate into employment but also exits to active labor market programs. Yet, in their other study of the same reform, Van Ours and Vodopivec (2008) do not find that the post-unemployment wage changes after the unemployment benefit period or that the quality of post-unemployment jobs improves in any other respect. Baker and Rea (1998), adopting the forward looking-approach, examine whether the requirements, that workers must fulfill to become eligible beneficiaries, affect employment duration.

In empirical works, it is common to study consumption rather than savings, because households preferences for a steady path of consumption growth

causes saving to vary with income. According to Friedman (1957), MPC decreases with the volatility of income because of increased uncertainty of permanent income. According to literature, the real effects of social insurance on consumption have received attention from economists in the last four decades. The early contribution in this regard states that, household characteristics may have a strong impact on consumption due to life cycle theory (Keynes, 1936; Ando and Modigliani, 1963). The recent studies find that the estimates may give us important information about bounds for the effect of the lagged dependent variable since the OLS estimate is biased upwards while the within estimate is biased downwards (Blundell and Bond, 1998). Shapiro and Slemrod (1995) find that 43% of the surveyed consumers are willing to spend the temporary increase in their take-home income in response to the changes in income. Thaler (1990) postulates that different sources of income result in different MPCs. Among related studies, Parker (1999) and Souleles (1999) obtain low MPC estimates during the 1980s. The surveys are thus uninformative. Seidman and Lewis (2002) consider another extreme case in which all households have an MPC of 0.40 which is therefore equal to the aggregate MPC. They noted that the aggregate MPC in this example is always greater than the fraction of people who mostly spend the benefits but it lies within a fairly small range. In the contemporary context, however, the most surprising aspect of Friedman's (1957, 1963) arguments is that their main thrust is to prove an MPC much less than 1 (to discredit the "Keynesian" model which claims that consumption is roughly equal to current income) rather than to prove an MPC significantly greater than 0.05. In fact, Friedman (1957) actually states that the MPC out of "transitory income shocks" is zero, but later on, in another study (Friedman, 1963), he is very clear that in his conception of the PIH, first-year consumption out of windfalls was about 0.33.

METHODOLOGY

This paper, as mentioned above, intends to provide a basis for assessing the effect of Hafiz payments on consumption. However, there are formulas to predict an individual's spending. According to the usual results of the permanent income theory:

$$C = {}_1 YP, \qquad (1)$$

where C = spending, YP = permanent income (non- Hafiz), and $_1$ = a parameter. Similarly, an individual that received Hafiz benefits but is not constrained by illiquidity will be assumed to spend according to:

$$C = {}_1 [YP + HZ], \qquad (2)$$

where HZ = Hafiz benefits. (as with other income, we assume that Hafiz represents a flow of income that the individual expects to receive at the end of each period of searching for jobs.)

Several theories and models have been used to explain the relationship between disposable income and expenditure, for instance partial adjustment is widely recognized to determine consumption behavior (Langmeier and Patrick, 1990). The partial adjustment model is used in this paper to estimate MPC for Hafiz beneficiaries. The variables of this study are chosen according to the Saudi socio-economic conditions provided that Partial Adjustment Hypotheses (PAH) is specified in the form of a model on the lines framed by Langemeier and Patrick (1990). Consumers are assumed to adjust consumption expenditure only partially when income fluctuates because of their habits or lack of information (Jonston, 1984). The actual change in consumption (C) from previous year, "t-$_1$", to current year, "t", is some function of the desired change in income between the periods. On this basis, PAH is specified under the following model:

$$C_t = {}_0 + {}_1 Y_t + {}_2 C_{t-1} + õ_t \qquad (3)$$

where C_t = Hafiz Beneficiaries consumption expenditure; $_0$ = intercept of the model; $_1$ & $_2$ = regression coefficients of respective variable; Y_t = Hafiz Beneficiaries disposable income; t, t-1 = years; and õt = error term.

The model based on previous discussion is used to estimate the MPC for Hafiz beneficiaries.

DATA

The data for this study have been taken in the period between June 2012 and January 2014 taken from two sources: secondary data from the Ministry of Labor and primary data from survey. This paper reports on survey that is concerned with the spending of Hafiz beneficiaries. The subjects of this study are 384 males and 568 females (total 952; males 40.3%; females 59.7%) who became eligible for the unemployment benefit. It is to be noted here that all of them were not totally dependent on Hafiz. Only 17% (n. 165) of them stated that Hafiz was their only source of income and almost equal number of respondents, 18% (n. 169), stated that they depended entirely on Hafiz for the time being but not throughout the year. However, most of the respondents, 65% (n. 618), stated they were never totally dependent on unemployment benefits. The paper narrows its focus only to those respondents for whom Hafiz benefits were only the additional income and investigates the impact of this supplementary money on their consumption and savings though most of the beneficiaries are female. As mentioned above, among the

respondents of this category the number of female respondents (76%) substantially exceeded the number of male ones (7%). The difference between males and females in terms of MPC and spending is shown below in Table 1.

Table 1: MPC and spending in terms of male and female

Saudi Female			Saudi Male			Total		
Hafiz	MPC	Spending	Hafiz	MPC	Spending	Hafiz	MPC	Spending
2000	0.86	1717	2000	0.68	1332	2000	0.73	1460

RESULTS AND DISCUSSION

In order to determine the consumption of Hafiz beneficiaries over time, the short-run MPC is estimated. However, the MPC is critical in determining how much an economy can gain from the increase in government spending. If individuals tend to consume all of the increases of their income (where MPC is very near to 1), the additional income from these increases will be plowed back into the economy, creating a multiplier effect. The more the consumers tend to save, the less the multiplier effect becomes. According to the model, discussed above, the regression coefficient ( ) of a lag variable is interpreted as short-run MPC (Mirer, 1988). Obviously, in the case of Hafiz beneficiaries the MPC is 0.78 which means, on average, a beneficiary spends 78 Halalahs for each Riyal received from Hafiz. However, the female MPC (0.85) is higher than male MPC (0.65) which means a female spends 85 and a male spends 65 Halalahs for each Riyal received from Hafiz.

MPC creates an impact on consumption (C_t) of a unit increase in disposable income (Y_t), while holding lagged consumption (C_{t-1}) constant. The value of this coefficient is high and statistically significant. The coefficient of C_{t-1} lagged consumption is 0.8362 which indicates the effect of lagged consumption on the increase in consumption (C_t). The results of the estimated model support the hypothesis that consumer adjusts consumption more when income fluctuates.

Table 2: Average monthly consumption and income per Hafiz beneficiary for the period between June 2012 to Jan 2014

(Yt-Yt-1)	(Yt-1)	(Ct-1)	(Yt)	(Ct)	Month
200	1989	1325	2189	1664	Jun-12
329	2436	1430	2765	1612	Jul-12
263	2431	1344	2694	1655	Aug-12
-11	2676	1413	2665	1723	Sep-12
-96	2534	1387	2438	1687	Oct-12
107	2455	1445	2562	1882	Nov-12
102	2551	1461	2653	1823	Dec-12
206	2438	1471	2644	1891	Jan-13
-60	2433	1387	2373	1667	Feb-13
-223	2654	1421	2431	1689	Mar-13
103	2443	1398	2546	1721	Apr-13
164	2289	1407	2453	1789	May-13
40	2521	1432	2561	1811	Jun-13
110	2452	1525	2562	1998	Jul-13
49	2542	1535	2591	1991	Aug-13
181	2453	1521	2634	1990	Sep-13
97	2667	1463	2764	1887	Oct-13
95	2570	1421	2665	1776	Nov-13
64	2543	1468	2607	1802	Dec-13
310	2254	1476	2564	1825	Jan-14

The paper finds that 78% of the respondents (739) spend all of the unemployed benefits and 22% of them (213) save a portion of the allowance. Table 3 shows that they usually spend on four items: accessories, electronics, food, and trips. In terms of electronics and food, males and females show almost similar attitude but in terms of accessories and trips they are quite opposite to each other.

Table 3: Comparison between males and females in terms of spending

Types of Spending	Male	Female	Mean
Accessories	35%	61%	48%
Electronics	28%	18%	23%
Food	17%	19%	18%
Trips	20%	2%	11%

CONCLUSION

The short-run MPC can be used to assess the impact of an increase in income on Hafiz beneficiaries' consumption. The regression results of partial adjustment model indicate that the coefficient of disposable income variable is 0.7328. Particularly, an addition of one Riyal to net income results in an expected change in Hafiz beneficiary's consumption around 73 Halalahs. The estimates suggest that a large part of Hafiz benefits help stabilize the Saudi Economy because instead of saving, more than two thirds of Hafiz recipients consume the increases in benefits. For the other recipients, transitory increments became a part of permanent wealth and are supposed to be consumed for a long time, while increases in benefits that are expected to be permanent are consumed like any other increase in permanent income. The fact that the beneficiaries spend more than two thirds of the unemployment benefit implies that they have sufficient savings to meet transitory losses of income without any disruption in their consumption spending. On the basis of this finding, it can also be assumed that some Hafiz recipients are constrained to increase total consumption on the elastic commodities. In short, Hafiz benefits, as some scholars found in the case of other unemployment benefits, produce the ripple effects on the recipients' consumption and thus bolsteres the Saudi national economy.

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