

Access to housing benefits under dwelling scarcity: Implications of Increasing the Housing Benefits Tax in PNG

ABSTRACT

Previous studies have demonstrated the critical situation of rental housing and commercial land ownership in Papua New Guinea, and this problem continues to affect the country's low and middle-income earners. The unique contribution of this paper is that the findings indicate that the government's decision of restoring some equity via increasing the housing benefits tax in 2017, which predominately impacts higher income earners, has been generally well accepted amongst the wider population. In particular, this decision to bring the tax treatment of the Housing Benefit in line with the cash allowance which is generally valued at less than the Housing Benefit and taxed at marginal rates, is statistically supported and appears to be appropriate based on equity grounds. The findings also have implications for the broader issue of social equity.

1 Introduction

Urban Papua New Guinea (PNG) suffers from one of the highest price-to-income ratios in the world (Endekra et al., 2015) where historical and structural factors that limit private ownership contribute to extreme housing scarcity in urban areas. Yet, provision of affordable housing is a challenge for governments in many countries where house prices have increased in response to housing shortages. The flow-on effects of increased expenditure on dwellings as a portion of the household budget has been associated with negative outcomes such as restricted access to food, clothing, health care and education for low income households in particular, as well as lower overall standards of living (see for example Binod et al., 2010; Vaid et al., 2017; Mahabir et al., 2016). As is the case in PNG, alongside strong trends towards urbanization, the lack of affordable housing has commonly led to development of informal urban settlements that lack basic services, infrastructure and security, seeding future social and economic inequality and presenting barriers to long-term economic development (Wangi et al 2017).

The high relative cost of housing in PNG has traditionally incentivised institutions to provide housing benefits to employees as part of their remuneration and part of a social contract entered between employers and employees, helping employees meet their housing needs and signalling job security in return for enhanced productivity. These fringe benefits are received in the form of either a housing allowance (cash assistance) or as direct provision of accommodation (owned or rented by the employer), the latter of which is concessionally taxed. In light of recent legal change to the tax code that has diminished concessions for employer provided housing, the characteristics of those who receive these housing benefits (and those who did not) are explored to assess the implications of the change on both horizontal and vertical equity grounds.

Consequently, the important aim of this study is to empirically examine the decision to increase the taxable component of the housing benefit on equity grounds. We do this by comparing the status of those who receive the employer housing benefit against those who receive the employer cash allowance and those who receive no benefits using a multinomial logistic regression. By doing so we also indirectly address the larger issue of housing scarcity and land ownership in PNG and how the findings have tax policy implications for the broader community. The remainder of the paper is structured as follows; the next section provides the theoretical background to the study and this is followed by a brief description of the methodology employed. The next section presents the results, followed by a discussion of the research findings, tax policy implications and the conclusion.

2. Background

2.1 Land Ownership in Papua New Guinea

PNG has an estimated population of over 8 million people and the country's urbanisation rate of 13 per cent is incredibly low by global standards with the majority of the urban population living in the major cities of Port Moresby and Lae (SPC, 2016). Despite this, scarcity of developed urban land has contributed to chronic housing shortages especially for the low and middle income earners, exasperated by a high rate of migration from the rural areas to the urban areas. Driving this scarcity, PNG retains a unique land ownership system with laws that recognizes both customary and common (English) law land rights where more than 97 per cent of the total land area is held under customary tenure for which there is no recorded title, with ownership rights vested in an extended family group, with the rest predominantly owned by the PNG Government (Chand, 2017).

Under PNG law, customary land cannot be sold but those wanting to commercialise land may register this land, a process that defines title and opens it up to transactions (Sillitoe & Filer, 2014). Through this process, property development on customary land with long-term, 99-year leases is increasingly common. However, such exchanges are conducted via collective agreement with complex and lengthy procedural barriers. Disagreements over title, the need for collective agreements for land registration and the reclamation of land sold without full consent present effective barriers to the commercialization of land and contribute to substantial scarcity, especially in urban areas.

The lack of available land and the associated difficulties in expanding housing stock have coupled with increasing levels of rural to urban migration to create housing demand that far outstrips available supply (Wangi et al, 2017). This has led to housing costs comparable to much wealthier countries, and contributed to substantial socioeconomic disparity (Ezebilo, 2017) while in the meantime increasing the relative value of employer remuneration in the form of housing benefits. Clearly the freeing up of customary land will contribute to extending and driving the PNG economy (Wangi et al 2017).

2.2 Housing Benefits in Papua New Guinea

A widely accepted view in PNG is that employers have the obligation to provide housing for their employees (Kaitilla and Sarpong-Oti, 1993). It is believed that providing housing to people who can afford it may assist in attracting quality labour, including highly educated and professional foreign workers to PNG; providing housing is also deemed essential for employers to remain competitive by retaining senior and experienced national staff (Kaitilla and Sarpong-Oti, 1994). Another justification provided by nearly 50% of respondents in Kaitilla et al.'s (1993) study is that employer provided housing increased job stability and removed the worries of urban accommodation.

Preference for employer provided accommodation ensured that increases in urban home ownership in PNG had not increased significantly up to 1993 (Kaitilla and Sarpong-Oti, 1993). But lack of finances and the desire of national staff to retire in their home village were also strong incentives to not take up urban home ownership (Kaitilla and Sarpong-Oti, 1993). Moreover, heavily subsidised government rental housing market was also thought to undermine home ownership in the country (Stretton, 1979). But there is another reason why housing continued to be a problem in urban PNG: Employer provided housing is thought to constitute a financial burden to normal business operations; which tend to discourage effective employer participation in the PNG housing market (Kaitilla and Sarpong-Oti, 1994). In consequence, housing in PNG has been unavailable and unaffordable for a large portion (60% in 1993) of the urban population for some time (Kaitilla and Sarpong-Oti, 1993) and this has not changed in recent years (Wangi et al, 2017).

Since housing in PNG generally revolves around shortage and affordability, employer provided housing is closely associated with people's wages (Yala 2015). Hence, most high-income earners tend to settle for employer-provided housing in existing accommodation, while lower income earners endeavour to

build homes (Kaitilla and Sarpong-Oti, 1993), mostly in the informal urban settlements. As a result of competition for employer provided housing in PNG, Kaitilla and Sarpong-Oti (1993) suggested changing the eligibility criteria by limiting it to executives or more senior officers whose employment packages may include housing as an employment fringe benefit.

As the demand for housing was far in excess of supply (Webster 2016), a lot of private organisations also felt obliged to offer subsidised housing as well in order to compete for staff. However, the resulting stock of urban accommodation was “completely inappropriate in terms of the income of PNG nationals and the country’s aspirations for a more equitable society” (Stretton, 1979, 6). Consequently, the allocation of government subsidies aggravated this inequality, with the better paid, upper level public servants paying a more heavily subsidised rent to live in expensive, relatively luxurious, high conventional houses (Levine & Levine, 1982, 325). Given this scenario, there seems to be a valid argument for the HBT to be increased particularly, as the majority in this higher income group exploit the rewards of the housing benefit.

2.3 Tax Treatment housing benefit vs cash allowance

Employer-provided housing in PNG is most commonly associated with the central government, provincial governments and statutory authorities and institutions, such as universities and hospitals, rather than with typical private sector employers. This is not to suggest that private sector employers in PNG do not recognise that their common difficulty in recruiting and retaining qualified employees is connected to housing issues. Instead, most private sector employers prefer paying third party rental house providers or cash house allowances to their employees, rather than have their own houses to accommodate their workers.

It may be that most private sector employers prefer these arrangements because the tax treatment of the employee housing allowance is not complicated. A housing allowance¹ is considered to be fully assessable until such time as a housing allowance variation notice² is supplied to the employer. Where a variation is obtained the employee is taxed on the prescribed value of the accommodation and to the extent that the allowance exceeds the actual cost of the accommodation. Consequently, where a variation is approved, a tax return is lodged claiming the amount of the allowance, less housing expenditure/deductions incurred.

However, the housing cash allowance is grossly inadequate as was found by Wangi et al (2017). In particular the housing allowance for public servants failed to meet the housing affordability criteria which is 30% of the base salary (Wangi et al 2017). It was clearly discriminatory against lower income earners, which created cost of living issues. So, in addition to being taxed at marginal rates those in receipt of the cash allowance found the amount to be grossly inadequate.

On the other hand, the prescribed value of employer-provided accommodation³ is taxed at concessional rates (see Table 1); but the PNG income tax law applies to any employee to whom an employer provides a housing benefit. Prior to 1 January 2017,⁴ the prescribed taxable value of employer-provided low-cost housing (in Goroka, Lae, Madang, Mt Hagen or Port Moresby)⁵ could fetch K400,000 or less if sold in the open market, or for which market rental was K1,000 or less per week. On the higher end of the spectrum at that time, employer-provided high cost housing located in any of the four major cities mentioned above could fetch K800,000 or more if sold in the open market, or for which market rental is between K3,000 but less than K5,000 per week. In between, the taxable value of a medium cost employer-provided house was one that could fetch more than K400,000 but less than K800,000 if sold on the open market, or for which market rental was more than K1,000 but less than K3,000 per week. A comparative look at these figures suggests that in nearly all cases more than 80 per cent of the value of the employer-provided housing benefit was not subject to tax.

Clearly issues of horizontal and vertical equity arise in this situation. Horizontal equity has been described as the perception that all taxpayers earning a similar income should be treated equally and that the tax burden is shared equally by all taxpayers in similar economic positions (Jackson and Milliron 1986, Staudt 1997). Whereas vertical equity has been described as the perception that the tax system treats everyone equally relative to their income level (Reckers et al 1994). That is the distribution of the tax burden is based on the taxpayers ability to pay (Smith and Kinsey 1978). Given this, the lower income earners in PNG should be taxed less as their higher income counterparts. Consequently, this imbalance in treatment was addressed via the 2017 PNG National Budget, which increased the taxable component of the housing benefit enjoyed by generally higher income earners. While the reaction to the tax increase was somewhat mixed initially, there was a strong desire to find some empirical support to justify the government’s decision. This laid the foundation for further work to be carried out through this study.

Table 1: Prescribed Values for Taxing Employer Provided Accommodation (K)

Accommodation type	From 1 January 2017		Prior to 1 January 2017	
	Area 1	Area 2	Area 1	Area 2
Very high cost*	2,500	1,500	-	-
Upmarket*	1,500	1,000	-	-
High cost	700	500	700	500
Medium cost	400	300	400	300
Low cost	160	150	160	150
Private mess/barracks	60	50	60	50
Government mess/barracks	7	7	7	7
Approved low cost housing scheme	Nil	Nil	Nil	Nil

* New cost categories.

Consequently, on 1 January 2017, the Government introduced two new tiers for upmarket and very high cost houses to particularly target the affluent and high-income earners in order to increase the taxable component of employer-provided housing benefit. As such the differential taxable value of very high cost employer-provided housing that would fetch K3,000,000 or more if sold on the open market, or for which market rental is K7,000 per week or more was established as shown in Table 1. Similarly, the taxable value of upmarket accommodation, which is any unit of accommodation which would fetch between K1,500,000 and K3,000,000 if sold on the open market and in any other case where the market rental is between K5,000 per week but less than K7,000 per week, was also established (PNG Department of Treasury, 2016).

However, the introduction of the very expensive property valuation tiers were not the only changes to the taxation of housing fringe benefits. In order to keep up with the appreciation of housing costs over the years, modest accommodation previously assessed as “low cost” or “medium cost” would now be assessed as “high cost”; while some areas that were previously assessed as “low cost” are now assessed as “high cost” areas (PNG Department of Treasury, 2016). It seems, that the focus and consideration of the two new very expensive property valuation tiers left little for discussion in these other housing valuation tiers.

3. Materials and Methods

This study investigates the dwelling, employee and employer characteristics associated with the provision of housing subsidies. The following briefly outlines, the survey instrument, sample selection, and data collection procedures that were employed in the study.

3.1 Survey Instrument

The survey instrument comprised two sections. The first part of Section A focused on various tax fairness dimensions with regard to the HBT. The second part of Section A focused on specific issues surrounding the housing benefits tax and are the focus of this paper. Section B comprised specific demographic factors of the participants including; age, income, gender, nationality, occupation and education. The survey also allowed participants to make any comments in relation to the housing benefits tax and the study generally.

The survey instrument was pilot tested amongst a small group of 20 individuals associated with the University of Papua New Guinea in Port Moresby. After the survey was refined and edited it was endorsed along with obtaining the prerequisite University Ethics Approval.

3.2 Sample Selection and Data Collection Procedures

Sample selection was in two stages. Four cities were selected where the prescribed taxable component of employer-provided accommodation benefits are the highest in the country but similar across all four cities. Port Moresby and Lae were preferred because they are the only two metropolitan cities in PNG where formal sector employment is concentrated. Goroka and Madang were included from among the country's second tier towns since they also have relatively large formal sector employers. The survey targeted subjects that were in paid employment in the formal sector for three reasons. First, these participants are more likely to have incurred taxes on their employment income; second, they are more likely to have been receiving a cash housing allowance or living in employer-provided accommodation; and third, they are able to read and complete the questionnaire written entirely in English by themselves.

The second stage of sample selection was judgemental, in that relatively large public, private and church or non-government organisations were selected as they were likely to have a large number of employees in different but clearly distinguishable grades. Introductory letters were sent to the chief executives of the selected organisations seeking their consent to allow the survey team to approach their employees who would be asked to voluntarily take part in the survey.

In total 2,000 questionnaires were hand delivered, 800 in Port Moresby and 400 each in Lae, Goroka and Madang either directly to consenting employees or through the personnel officers in each of the consenting organisations. A final sample of $n = 1,652$ (response rate 83%) was obtained and was distributed throughout the four cities as follows: Port Moresby $n_1 = 606$ (response rate 76%); Lae $n_2 = 371$ (response rate 93%); Madang $n_3 = 352$ (response rate 88%); and Goroka $n_4 = 323$ (response rate 81%).

4 Results

4.1 Participant Profile

Descriptive statistics presented in Table 2 show that the sample was evenly distributed amongst males and females, with the majority aged between 31-40 years (35%), married, and of PNG nationality. The participants were also generally highly educated, (46% Bachelor Degree or higher), with a large proportion of professionals from public sector employers. About a third of the respondents were earning between K700 and K1300 gross per fortnight (580, 36%). It was also evident that over two thirds were not residing in employer-provided accommodation but rather in their own home or house (1153, 71%). This needs to be taken into account in drawing conclusions as the majority of participants were not directly impacted by the HBT.

Table 2: Participant Demographics

		Frequency	Percent
Gender	Female	742	46%
	Male	870	54%
Age	21-30	428	26%
	31-40	570	35%
	41-50	384	24%
	Over 50	199	12%
Nationality	PNG National	1,586	98.4%
	Other	26	1.6%
Marital Status	De Facto	1	<1%
	Divorced/Separated	138	9%
	Married	1,110	68%
	Single/Never married	311	19%
	Widowed	52	3%
Education	Year 11 or below	212	13%
	Year 12	87	5%
	Certificate	222	14%
	Advanced Diploma or Diploma	373	23%
	Bachelor Degree	512	32%
	Postgraduate Degree	203	13%
	PhD	2	<1%
Income per fortnight	Less than K400	114	7%
	K400-K700	299	18%
	K700-K1300	580	36%
	K1300-K2700	417	26%
	K2700-K9600	148	9%
	More than K9600	34	2%
Employer Category	Church or NGO	126	8%
	Private Sector	501	31%
	Public Sector	967	60%
Employer-provided accommodation	No	1,153	71%
	Yes	453	28%

4.2 Multinomial Logistic Model of Housing Benefits

Respondents were asked whether they received employer provided housing and if they did not, whether they received a cash allowance for their housing needs. The responses to these two questions were re-encoded into a single variable to represent the level of benefits received (0 = no benefits, 1 = Employer Provided Housing, 2= Cash Allowance). The following analysis employed list-wise deletion of missing values with 1,485 complete responses analysed.

A multinomial logistic regression (Table 3) was fitted to model the propensity to receive benefits against demographic and dwelling information collected through the survey. The Small-Hsiao (ref) test was used to check for the assumption of the independence of irrelevant alternatives (IIA) and this was not rejected for any of dependent variable levels (for a significance cut-off of 0.05).

Table 3: Logistic regression

VARIABLES	(0)	(1)		(2)	
	No Employer Provided Assistance	Employer Provided Housing		Employer Provided Allowance	
		Coeff.	Exp(β)	Coeff.	Exp(β)
What is your gender? Female	-	-	-	-	-
What is your gender? Male	-	0.504*** (0.147)	1.655	0.217 (0.148)	1.242
Education, Year 12 or below	-	-	-	-	-
Education, Diploma or Certificate	-	0.214 (0.229)	1.239	-0.209 (0.225)	0.811
Education, Bachelor or Postgraduate Degree	-	0.836*** (0.241)	2.307	0.137 (0.235)	1.147
Accommodation Type, Flat/Apartment	-	-	-	-	-
Accommodation Type, House/ Home	-	-1.134*** (0.193)	0.322	-0.610*** (0.203)	0.543
Accommodation Type, Other	-	-0.384 (0.378)	0.681	-0.604 (0.451)	0.547
Accommodation Type, Room	-	-1.830*** (0.298)	0.160	-0.596** (0.259)	0.551
Age, 21-30	-	-	-	-	-
Age, 31-40	-	0.365* (0.208)	1.441	-0.0613 (0.192)	0.941
Age, 41-50	-	0.937*** (0.219)	2.552	-0.0968 (0.224)	0.908
Age, Over 50	-	1.255*** (0.265)	3.508	0.306 (0.274)	1.358
Rental Segment, Less than K300	-	-	-	-	-
Rental Segment, K300 - K1000	-	-0.478*** (0.183)	0.620	0.140 (0.186)	1.150
Rental Segment, K1000-K3000	-	-0.124 (0.232)	0.883	0.406* (0.243)	1.501
Rental Segment, K3000-K5000	-	-0.0303 (0.374)	0.970	-0.103 (0.440)	0.902
Rental Segment, More than K5000	-	0.279 (0.584)	1.322	0.469 (0.618)	1.598
Rental Segment, Other	-	0.419 (0.500)	1.520	0.500 (0.479)	1.649
Housing Value Segment, Low cost	-	-	-	-	-
Housing Value Segment, Medium cost	-	0.0663 (0.195)	1.069	-0.227 (0.198)	0.797
Housing Value Segment, High cost	-	-0.249 (0.272)	0.780	-0.625** (0.288)	0.535
Housing Value Segment, Very high cost	-	-0.665 (0.545)	0.514	-0.454 (0.568)	0.635
Housing Value Segment, Up-market	-	0.862* (0.443)	2.368	0.218 (0.485)	1.244
Housing Value Segment, Other	-	-1.266*** (0.428)	0.282	-0.573 (0.363)	0.564
Fortnightly employment income, Less than K400	-	-	-	-	-
Fortnightly employment income, K400-K700	-	0.200 (0.355)	1.221	1.091** (0.443)	2.977
Fortnightly employment income, K700-K1300	-	0.313 (0.349)	1.368	1.471*** (0.436)	4.354
Fortnightly employment income, K1300-K2700	-	0.903** (0.372)	2.467	2.225*** (0.457)	9.253
Fortnightly employment income, K2700-K9600	-	1.037** (0.432)	2.821	2.722*** (0.496)	15.211
Fortnightly employment income, More than K9600	-	0.589 (0.584)	1.802	1.579** (0.680)	4.850
City, Goroka	-	-	-	-	-
City, Lae	-	1.074*** (0.214)	2.927	0.0355 (0.238)	1.036
City, Madang	-	0.774*** (0.219)	2.168	-0.112 (0.232)	0.894
City, Port Moresby	-	-0.529** (0.225)	0.589	-0.258 (0.205)	0.773
Employer category, Church and NGO	-	-	-	-	-
Employer category, Private Sector	-	-0.788*** (0.297)	0.455	-0.539** (0.264)	0.583
Employer category, Public Sector	-	-0.430 (0.274)	0.651	-1.345*** (0.258)	0.261

Constant		-1.207** (0.490)	0.299	-1.202** (0.543)	0.301
Observations				1,485	
McFadden's Psuedo R2				0.155	
Small-Hsiao tests of IIA assumption (N=1485)					
			χ^2	df	$p > \chi^2$
No Employer Provided Assistance			37.397	30	0.166
Employer Provided Housing			40.696	30	0.092
Employer Provided Allowance			29.401	30	0.497

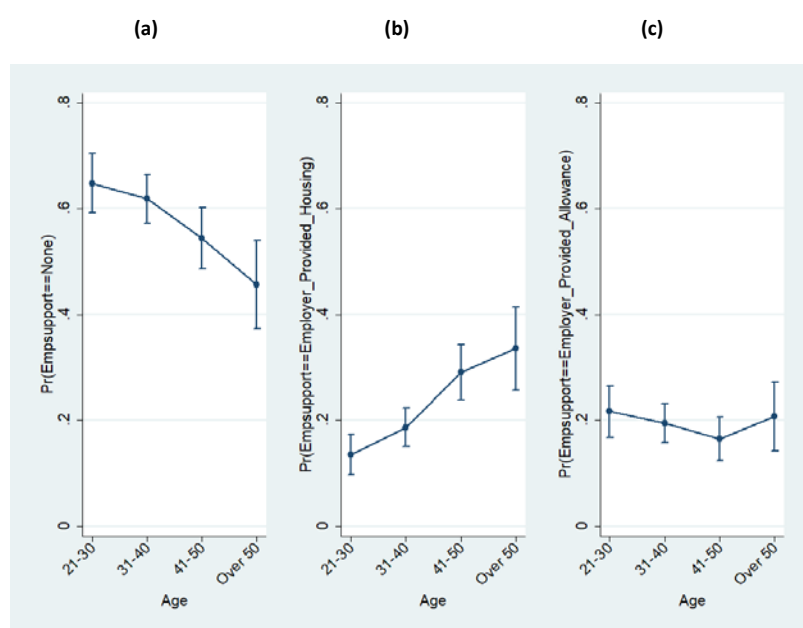
Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Assessed against the base model of receiving 'No housing benefits' being male was a significant positive predictor for receiving Employer Provided Housing ($\beta = 0.504$, $p < 0.01$, odds ratio = 1.655) as was having a Bachelor Degree or PhD ($\beta = 0.836$, $p < 0.01$, odds ratio = 2.307). Working in the private sector was found to be a negative predictor for receiving Employer Provided Housing ($\beta = -0.788$, $p < 0.01$, odds ratio = 0.455) against the base case of being employed by a Church or NGO. Compared to respondents in Goroka, those living in Port Moresby were less likely to receive Employer Provided Housing ($\beta = -0.529$, $p < 0.05$, odds ratio = 0.589) and more likely if they lived in Lae ($\beta = 1.074$, $p < 0.01$, odds ratio = 2.927) or Madang ($\beta = 0.774$, $p < 0.01$, odds ratio = 2.168). Respondents were less likely to be living in an Employer provided dwelling if they lived in a stand-alone house or home ($\beta = -1.134$, $p < 0.01$, odds ratio = 0.322) or a single room dwelling ($\beta = -1.830$, $p < 0.01$, odds ratio = 0.160) when compared to living in a flat or apartment.

Similarly, respondents were less likely to be receiving an Employer Provided Housing Allowance if they lived in a house ($\beta = -0.610$, $p < 0.01$, odds ratio = 0.543) or a single room dwelling ($\beta = -0.596$, $p < 0.01$, odds ratio = 0.551) when compared to living in a flat or apartment. Against the base case of being employed by a Church or NGO, working in the private sector was found to be a negative predictor for receiving an Employer Provided Housing Allowance ($\beta = -0.539$, $p < 0.05$, odds ratio = 0.583) as was working in the public sector ($\beta = -1.345$, $p < 0.01$, odds ratio = 0.261).

Figure 1: Marginal effects at mean values Age

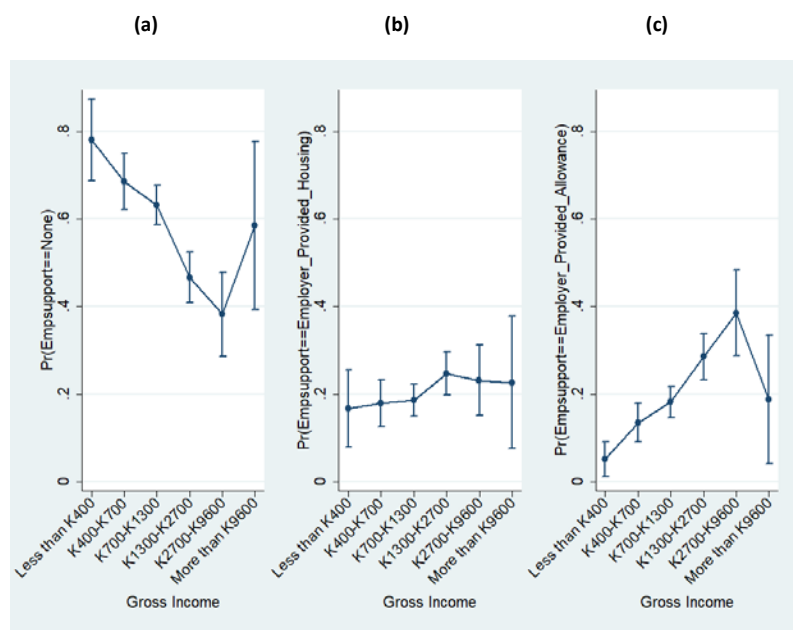


The marginal probabilities of receiving the different levels of housing support at mean levels across age categories are graphed in Figure 1, and show a gradual increase in the probability to live in

Employer Provided Housing as age increases (Figure 1b). Age is significant ($p < 0.05$ or better) across all age categories with increasing age positively affecting the likelihood of receiving employer provided housing. Age is not a significant predictor in the case of receiving a housing allowance.

The marginal probabilities of receiving the different levels of housing support at mean levels across gross fortnightly employment income categories are graphed in Figure 2. Figure 2a shows a gradual decline as income increases in the probability of receiving no housing support at all with probabilities in Figure 2c indicating a strong positive relationship between the probability of receiving cash allowance and increased income. While Figure 1c shows a strong decline for the highest income categories we note that only coefficients for income categories for K1300-K2700 and K2700-K9600 show significant ($p < 0.01$) positive propensities against the base of Less than K400. A muted positive relationship is also observed between income and the provision of Employer Provided Housing (Figure 2b) with income categories for K1300-K2700 and K2700-K9600 showing significant ($p < 0.01$) positive increases in probabilities against the base of Less than K400. The relative contribution of fortnightly income to the propensity to receive employer provided housing is modest at mean levels. In other words the income poor are broadly equally likely to receive such benefits as the income rich. Given this, evidence to support the justification of changes to tax treatment of employer provided housing on vertical equity grounds appear modest. That is, despite the disparity in income levels, the receipt of housing allowance or the housing benefits appear to be the same.

Figure 2: Marginal effects at mean values Gross Income



However, when viewed in terms of the value of the accommodation provisioned, there is evidence of vertical inequalities in the quality of dwellings as measured by their rental value and sales segment (Figure 3 & 4). In particular for significantly higher propensities to receive employer provided housing in the upmarket sale segment ($\beta = 0.862$, $p < 0.10$, odds ratio = 2.368) as compared to Low Cost dwellings. The value of house rentals in PNG is low in low-income areas where as houses located in the central business district reveal higher median house rent prices (Ezebilo 2017). Consequently, those low-income earners living in areas outside the central business district are at a distinct disadvantage, if their housing allowances are subject to full taxation while higher income earners receive concessional tax treatment. This finding is also supported by (Leung et al 2012) who found in a general equilibrium model, that house price and consequently house rent price and affordability are determined by location and accessibility to trunk infrastructure.

Figure 3: Marginal effects at mean values Rent Segment

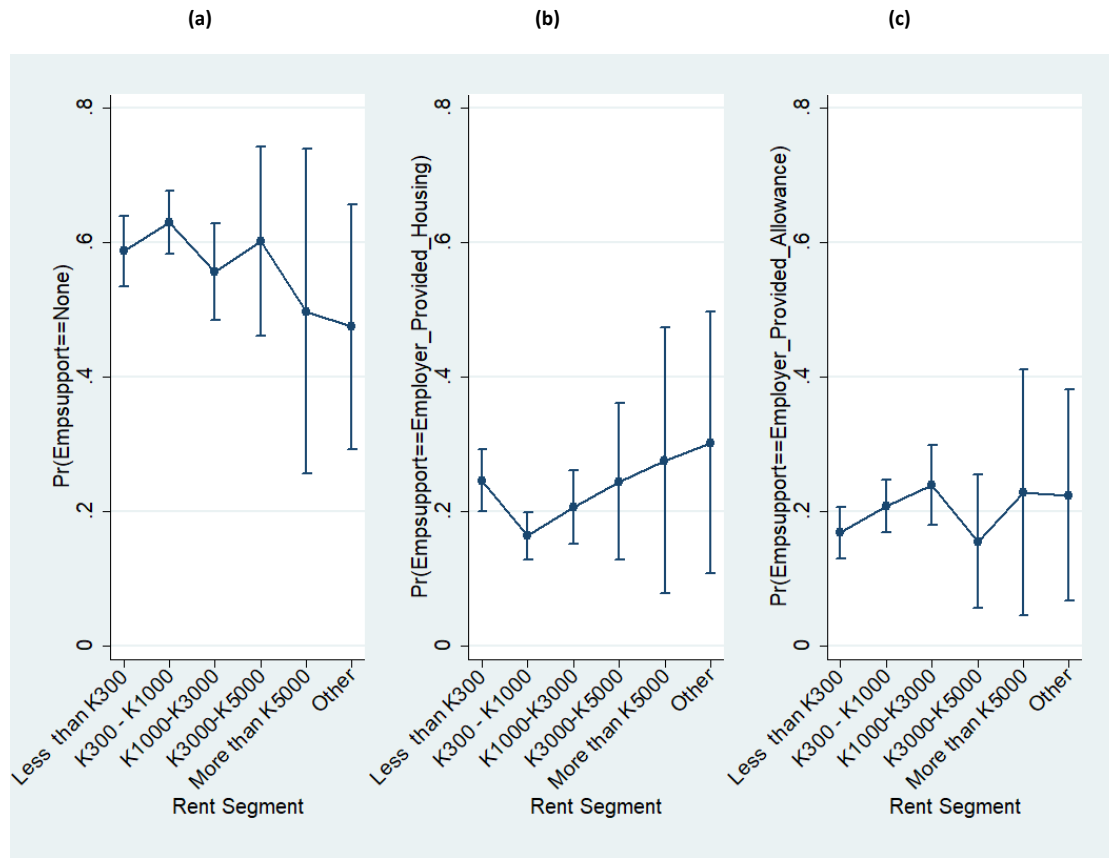
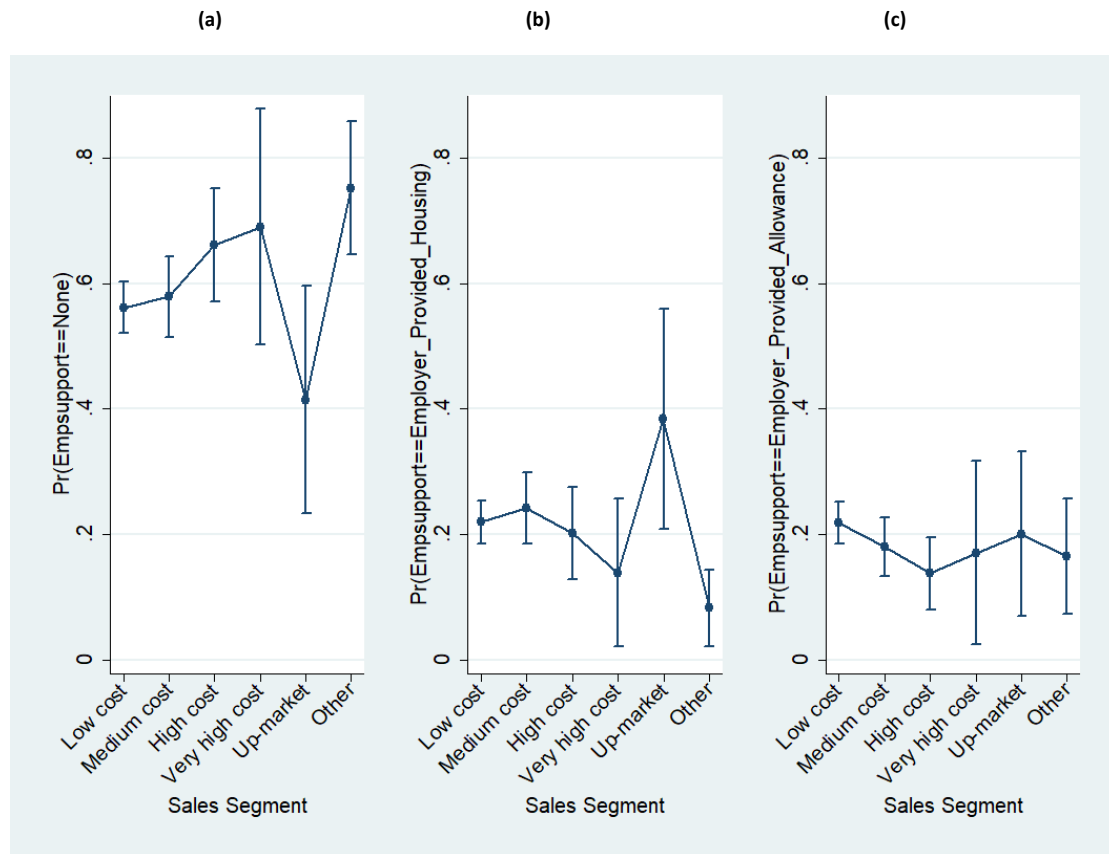


Figure 4: Marginal effects at mean values Sales Segment



5 Discussion

5.1 Findings

The study found that those living in employer provided housing and those receiving housing allowances have substantially different characteristics than those that do not receive such benefits in metropolitan PNG. Those living in employer provided housing are more likely to be male, working for a government organization or an NGO, older, better educated, living in otherwise more expensive accommodation and generally on a higher income. Compared to those receiving no benefits, those living in employer provided accommodation are 1.65 times more likely to be male, 2.31 times more likely to have a graduate education or more, 3.5 times more likely to be over 50 years of age (and with a general increase in propensity to receive employer provided housing with age), 3.4 times more likely to live in the most expensive “up-market” accommodation segment and more than twice as likely to be earning a fortnightly income of K1300 or more. In comparison, those receiving an employer housing allowance when compared to those who do not receive benefits are much more likely to be on higher income (odds ratio of 15.21 for a fortnightly income of K2700-K9600) but somewhat less likely to live in “high cost” accommodation (odds ratio of 0.535). Both benefit groups are more likely to be living in a flat or apartment than either a house or a room compared to their counterparts with no benefits, perhaps reflecting the inner-city location of available housing.

Since being older is positively associated with an increased propensity to receive employer provided housing but not housing allowances this may indicate that housing may not be available for younger employees due to long term tenure and scarcity of available housing stock, a gradual shift from employer provided housing to allowances or perhaps also that housing is a reward for seniority or longer service.

We also model a strong association between the propensity of receiving a cash allowance (but not housing) with increasing employee income. The results indicate that low income earners are disadvantaged through the receipt of the housing allowance as opposed to those receiving the housing benefit. This compounds the disadvantages low income households already experience by not deriving any benefits via the affordable housing program (AHP) in PNG (Ezebilo 2017). Additionally, the value of house rentals in PNG is low in low-income areas whereas houses located in the central business district reveal higher median house rent prices (Ezebilo 2017). Consequently, those low-income earners living in areas outside the central business district are at a distinct disadvantage, if their housing allowances are subject to full taxation while higher income earners receive concessional tax treatment. This finding is also supported by (Leung et al 2012) who found that house price and consequently house rent price and affordability are determined by location and accessibility to trunk infrastructure as indicated previously.

In addition to the statistical findings, it was suggested through the participants survey comments that the HBT was reviewed and approved based on the development phase of PNG. As PNG is developing, its infrastructure is also gradually improving. This means that the standard of housing in PNG will also gradually improve. Consequently, there is potential for further tax collection via increasing the HBT for higher income earners along with this improvement. Housing affordability is a massive issue that needs to be addressed. The increase in the HBT needs to be commensurate with increases in salary and wages. The following view demonstrates the housing concern of many of the respondents:

“Most working-class professionals live in settlement rented properties because the cost of housing is very high, on average, greater or less than K850 per fortnight for a decent self-contained accommodation where common facilities and hygiene standards are low. Yet working class people are taxed heavily on their income and housing allowance, regardless of where they live which is average.”

5.2 Tax Policy Implications

Increasing the HBT has implications regarding the equity of the overall tax system in light of the larger issue of housing affordability in PNG and sustainable wages growth. The lack of housing and unimproved income of citizens prevent many people from obtaining affordable homes. While the increase in the HBT could initially have a detrimental effect on taxpayer confidence (Levine & Levine 1982) its alignment with the tax treatment of the housing allowance is justified on equity grounds. Evidence suggests that the divergence between the two has the potential to result in abuse (Smith, 1992). However, this requires further investigation which is beyond the scope of this paper. As suggested by Kaitilla and Sarpong-Oti (1993, p72-73) perhaps the government should change the eligibility criterion for employer-provided housing by limiting it to executives or more senior officers, whose employment packages may include housing as an employment fringe benefit.

Low income earners should benefit indirectly from the increase in the HBT, as it impacts predominately higher income earners. This also favours low income earners who are the main target of the Affordable Housing Policy (AHP). However, the increase in house rent prices impacts on the affordability of homes for the low-income groups and this could also be alleviated by the PNG government agency, such as the National Housing Commission (NHC). The NHC should monitor the quality of the houses offered for rent (Ezebilo 2017A).

In addition to this, the construction of more houses for rent in low income areas and in the fringes of Port Moresby, should be accompanied by the establishment of trunk infrastructure as indicated previously (Ezebilo 2017B). To encourage the private sector to supply more low cost housing for rent a tax credit scheme could be introduced (Ezebilo 2017B). As land is also a major factor in the cost of housing rentals the government will need to put more effort into developing a strategy for unlocking more secure customary land to supplement the remaining state owned land (Ezebilo 2017B).

6 Conclusion

The study finds that those living in employer provided housing and those receiving housing allowances have substantially different characteristics that those than do not receive such benefits in metropolitan PNG. In particular, it finds that those who receive these benefits tend to be broadly better off than those who do not. It also finds that in the case of employer provided accommodation, the self-assessed value of the provided accommodation is of the most expensive category. Thus, it appears that at present there is weak evidence in PNG for employer provided housing to be considered a form of subsidised social housing defensible on equity grounds and the paper finds support for recent move to increase the Housing Benefit Tax applied to such housing to bring it in line with employer provided housing subsidies.

Significant inequalities exist in terms of access and support for access to quality accommodation, and our data is only for the formal sector. Inequity in the informal sector is likely to be substantially higher. In the context of equity, the reforms to the tax treatment of employer provided housing are well founded. This study contributes to the existing body of knowledge by investigating the effect of increasing the taxable component of the housing benefit on equity grounds and the wider implications for housing policy, employing national PNG data.

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Appendix A

Figure 5: Marginal effects at mean values Gross Income by Employer Category

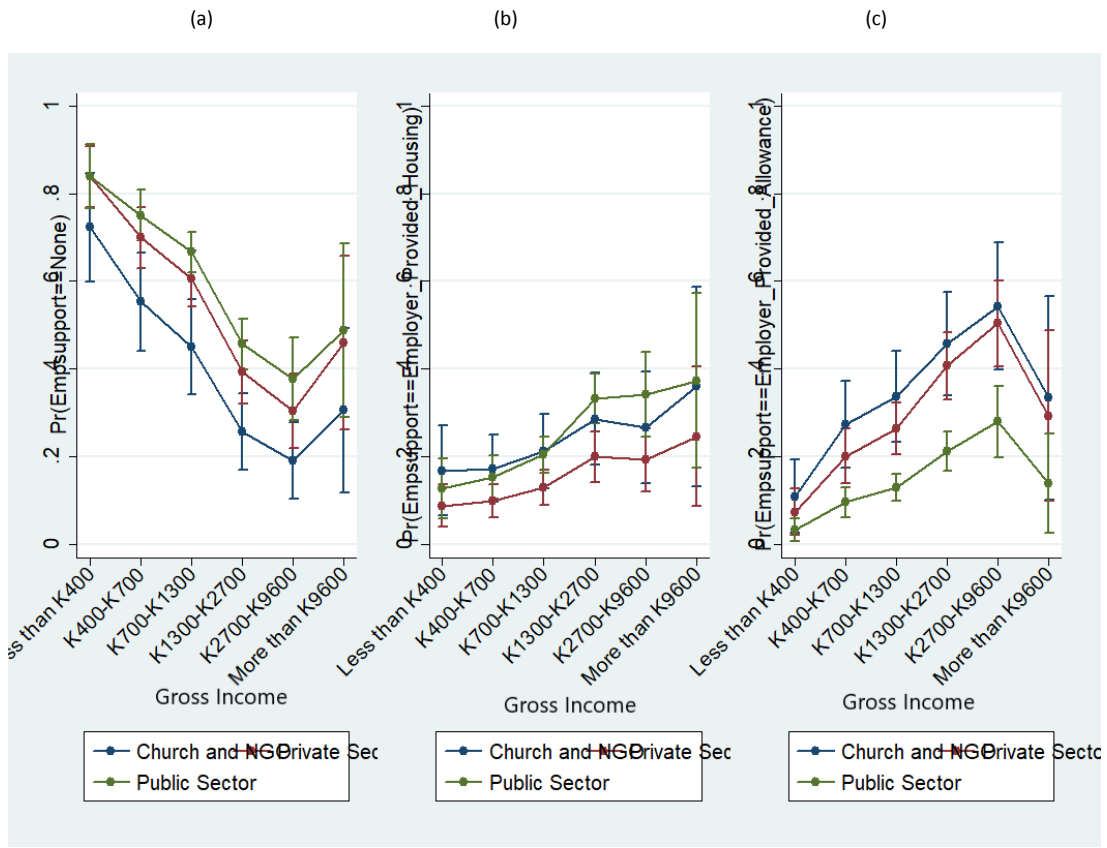
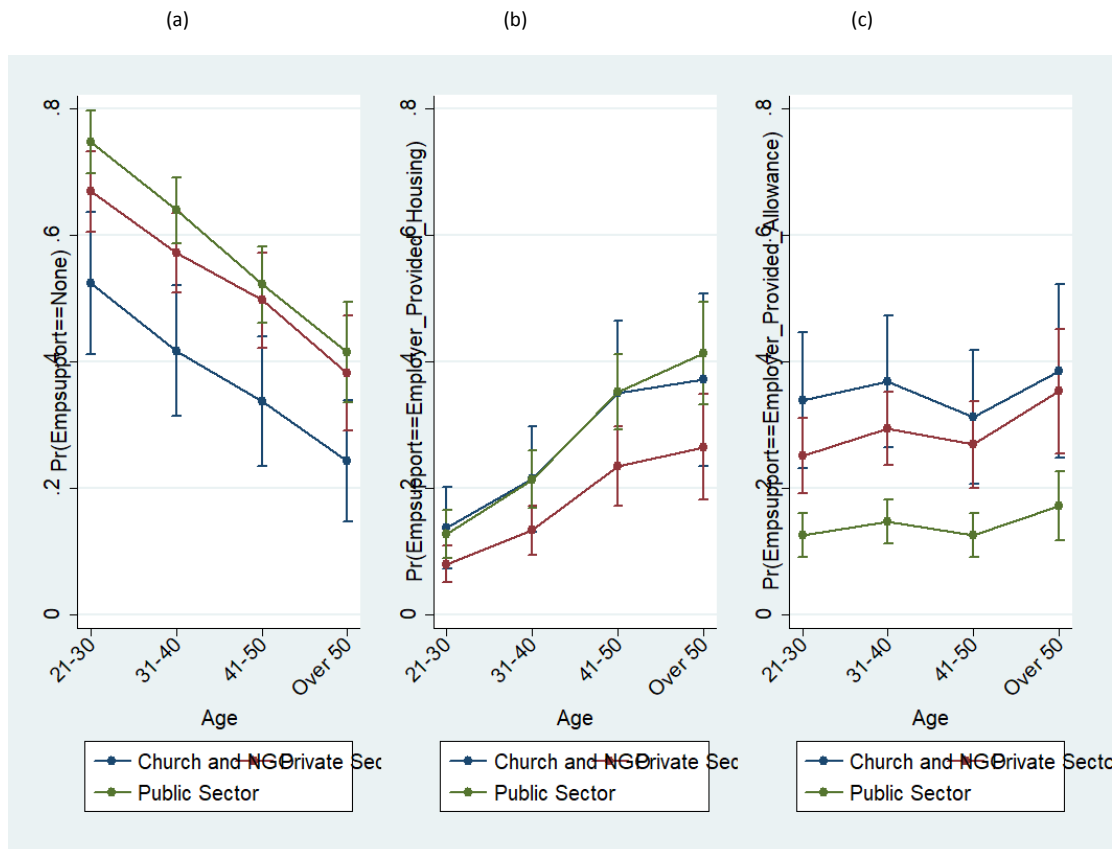


Figure 6: Marginal effects at mean values Age by Employer Category



¹ Housing allowance in s 4 of the Act means...”any allowance paid or provided to an employee, whether directly or indirectly, for the purposes of subsidizing residential accommodation to be occupied by the employee”- See also the IRC – Taxation Circular 2016/1 paragraph 42.

² Housing allowance variation notice –once a housing allowance becomes assessable in the hands of the employee, at that stage the employee would lodge a housing allowance variation to claim any reduction in the taxable nature of the allowance. See IRC – Taxation Circular 2016/1 paragraphs 45.

³ “Accommodation” refers to a house, flat, unit, hotel, motel, guesthouse, etc. that an employee is provided with the right to occupy or use as the usual place of residence; but ownership of these types of accommodation does not pass from employer to employee.

⁴ The prescribed taxable benefits in relation to employer-provided housing were last updated in 2011.

⁵ From 1 January 2017 the list of major cities classified as Area 1 has been expanded to include Kokopo, Alotau and Kimbe. Major urban centres included in Area 2 are Arawa, Buka, Bulolo, Daru, Kainantu, Kavieng, Kerema, Kiunga, Kundiawa, Lihir, Lorengau, Mendi, Popondeta, Pogera, Rabaul, Tabubil, Vanimo, Wabag, Wau and Wewak. Any other place in PNG not in Areas 1 and 2 are classified in Area 3 where the prescribed values of employer provided accommodation is nil. We will, however, limit the discussion in this paper to the major cities in Area 1 for illustration purposes.