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Productivity Gains from Migration: An Analysis of Cape Verdean Return Migrants[1]

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Abstract

Are return migrants more productive than non-migrants? If so, is it a causal effect or simply self-selection? Existing literature has not reached a consensus on the role of return migration for origin countries. To answer these research questions, an empirical analysis was performed based on household data collected in Cape Verde.

One of the most common identification problems in the migration literature is the presence of migrant self-selection. In order to disentangle potential selection bias, we use instrumental variable estimation using variation provided by unemployment rates in migrant destination countries, which is compared with OLS and Nearest Neighbor Matching (NNM) methods.

The results using the instrumental variable approach provide evidence of labour income gains due to return migration, while OLS underestimates the coefficient of interest. This bias points towards negative self-selection of return migrants on unobserved characteristics, although the different estimates cannot be distinguished statistically. Interestingly, migration duration and occupational changes after migration do not seem to influence post-migration income. There is weak evidence that return migrants from the United States have higher income gains caused by migration than the ones who returned from Portugal.

Keywords: return migration; productivity; labour income gains; self-selection; Cape Verde

1. Introduction

Migration has been taking an important role in world societies' composition in the last decades and historically occurred more frequently from developing to developed countries. In 2013 the total number of migrants in the world reached 232 million compared to 175 million in 2000. Moreover, 59% of world's emigrants lived in developed

countries, representing 10.8% of total population in these countries[2]. According to the World Bank, between 1990 and 2013 the average annual flow of migrants was around 3.3 Million, around one third had a developing country as destination.

When analyzing the benefits and costs of migration, one should precisely define the target of this analysis: it may be migrants individually; the whole destination society or even an origin country's society. This Work Project will follow the literature in measuring individual economic effects of return migration in the country of origin (Cape Verde). The aim of this work is to identity whether return migrants gain productive skills while abroad.

During the last decades, the debate on the impact of migration on the economic development of countries of origin has been lively. On the one hand, some authors highlight the disadvantages of migration summarized by "brain drain" arguments. These can be described as a society's losses due to the emigration of skilled individuals[3], which cause a direct human capital loss, particularly in critical sectors such as education, health and public service, that has an effect on national output, both directly and through human capital externalities. One can also consider other indirect channels such as the reduction of the quality of institutions through diminished demand for political accountability or a reduced supply and competition for public services[4].

On the other hand, recent literature describes potential benefits of migration specifically to the countries of migrant origin. One example is the "brain gain" theory - arguing that migration outflows may cause human capital gains for the non-migrant

[2] United Nations Department of Economics and Social Affairs, Population Division: Population Facts, September 2013.
[3] Scott and Gruber (1966) and Bhagwati and Hamada (1974) were the main proponents of "brain drain" arguments.
[4] Assuming that migrants' characteristics/skills suit these type of positions.

population by increasing the expectations of future migration (even if it never happens)[5]. Additional research examines the potential benefits of migration on political participation and the quality of institutions' in migration origin countries[6]. Migration may also lead to an increase in business creation/productive investment due to increased skills and liquidity provided by migrant savings and remittances[7], and to contribute positively to international trade and foreign direct investment[8].

The focus of our work is to measure the potential benefits of migration for individual skills when they are back to the country of origin. It is found that return migrants have labour income gains due to migration, after accounting for self-selection patterns, both in terms of observable and unobservable characteristics. This result contrasts to that of Lacuesta (2008), who uses a sample of Mexican migrants to examine the same research question, but fails to reach the same conclusions, but is according to Gibson and McKenzie (2010) using a sample of Tongan return migrants.

The structure of the Work Project is the following: Section 2 summarizes the most relevant literature. Section 3 gives the background for Cape Verde. Section 4 describes the household survey used in the empirical analysis. In section 5, the econometric models are discussed. The empirical results are presented in section 6. Finally, in Section 7, the main findings and policy implications are offered. Annex 1 presents all tables with the empirical results; Annex 2 describes Borjas and Bratsberg (1996)'s theoretical model; and Annex 3 presents an English version of the survey conducted.

[5] The "brain gain" theory was developed by Mountford (1997), Stark et al. (1997, 1998) and Vidal (1998). Empirically, the theory was tested at the micro level by Batista et al. (2012), and across countries and over time by Faini (2006); Ozden and Schiff (2006) and Beine et al. (2007, 2008).
[6] Batista and Vicente (2011).
[7] Dustmann and Kirchkamp (2003), Mesnard and Ravallion (2006), Yang (2008), and Batista et al. (2014).
[8] Gould (1994), Rauch and Trindade (2002), Kugler and Rapoport (2007), Iranzo and Peri (2009) and Javorcik et al. (2011).

2. Literature Review

The approach of this paper is to examine the wage differential between non-migrants and return migrants, which is taken as a proxy for the corresponding productivity differential. In addition, the nature behind the gap will be studied. We begin by summarizing and discussing the relevant literature for this examination.

Borjas and Bratsberg (1996) developed an economic model to explain migration[9]. Their starting point is Roy's Selection Model (1951). Their main contribution is the study of migrant's selection patterns relative to the distribution of skills/income in the origin and destination countries. The authors consider migration as a decision variable in maximizing life-cycle earnings: individuals decide whether they migrate or not taking into account the costs and benefits of migration over their lifecycle. This model makes two predictions regarding the phenomenon of return migration: first, individuals obtain human capital by migrating that will reflect higher productivity and wages at home. If productivity gains are high enough, returning to the home country may be the optimal scenario to maximize individual welfare. Second, return may be a decision caused by uncertainty about the wages prior migration. When an individual decides to migrate basing his decision on an expected wage higher than the real one, returning may be optimal[10].

Borjas and Bratsberg (1996) also analyze migrant characteristics and self-selection patterns. According to them, the monetary return on unobserved characteristics will determine who migrates. When the return on unobserved characteristics is higher abroad, migrants will be highly skilled relative to non-migrants (positive self-selection on unobserved characteristics). The opposite will happen if the return on unobserved

[9] Model developed in Annex 2.
[10] Even if the first condition (productivity gains) does not hold because wages abroad are not as high as expected.

characteristics is lower abroad. In any event, return migrants will be in the middle of the skill distribution of non-return migrants and stayers[11]. Borjas (1987) finds negative selection of the observed characteristics based on the idea behind the Borjas and Bratsberg (1996) model.

There is no consensus in the literature on migrant selection in terms of observed characteristics: opposing to Borjas (1987), Chiswick (1978) finds negative selection[12]. Recent work has focused on examining patterns of migrant self-selection on unobserved characteristics[13]. Akee (2010) studied American immigrants from Micronesia. In this setting, free mobility between these countries eliminated destination country screening that would potentially cause a selection bias. Akee (2010) finds that unobserved characteristics are positively related with migrant's self-selection[14] when matching pre-migration ages. The author also uses tropical typhoons and household assets damaged by them as instrumental variables finding strong evidence of positive self-selection based on unobserved characteristics with the previous method.

McKenzie et al. (2010) use an experimental measure to examine income gains from migration and analyze self-selection on Tongan migrants in New Zealand. New Zealand has an annual quota for Tongans to reside there permanently. As the number of vacancies is lower than the demand for visas, there is a lottery to randomly choose who migrates across applicants. In this specific setup, the authors are able to quantify income gains from migration by comparing ballot's winners and losers, who are supposed to have similar unobserved characteristics before migration (e.g. motivation). From comparing non-applicants with applicants, there is evidence towards positive self-selection on the unobservable characteristics by migrants/applicants. The authors also compare the

[11] For details on this derivation, please refer to annex.
[12] Both authors have studied immigrants in the same country (the United States).
[13] Such as courage, risk aversion, ability, motivation, etc.
[14] Excluding adults who migrate to study.

previous experimental measure with non-experimental measures[15]. Estimation using Instrumental Variable seems to be the only non-experimental method which does not overestimate results[16].

Some specific research has been done on the impact of return migrants in their origin countries. Lacuesta (2006) has studied potential productivity gains from migration and self-selection of Mexicans who migrate to the United States. The author found a wage premium of 7% for migrants staying abroad more than three months but he argues that there is no evidence of productivity gains caused by living abroad. The wage gaps between migrants and non-migrants are just a result of pre-migration productivity differences. To support the idea of positive self-selection in terms of unobservable characteristics, the author compares non-migrants with migrants who have been abroad for shorter periods than one year[17]. Short-term migrants have higher wages than non-migrants, which seems to be explained by pre-migration characteristics. However, the author warns that previous differences might be a signaling instrument of individual unobserved characteristics.

Gibson and McKenzie (2010) have an important contribution measuring human capital gains on return migrants from Tonga and Vanuatu. They study a seasonal program in New Zealand which is focused on unskilled workers. The authors conclude that migrants have human capital gains while they are abroad[18].

Batista et al. (2014) evaluate how entrepreneurial return migrants are by comparing them with non-migrants in Mozambique. The authors find a way of tackling

[15] McKenzie et al. (2010): Non-experimental measures used are first differences, OLS, difference-in-differences, matching, and instrumental variables.
[16] When using "pre-migration distance to the immigration office in Tonga" as an instrument.
[17] The main assumption here is that there are no significant productivity gains during a short period.
[18] In Tonga, increasing human capital will increase income and next generation's human capital by increasing child schooling.

the self-selection bias, unlike previous research[19]. To account for unobservable self-selection bias at both the initial migration stage, and at the return migration stage, the authors use variation provided by the independence and civil wars in Mozambique, GDP variation in Mozambique relative to the main destination countries, as well as social unrest factors such as violence in the destination countries. It is found that having a return migrant in the household increases the probability of business ownership by 22-27%.[20] It is concluded that overall negative self-selection partially hides the effect of return migration on entrepreneurship.

3. Cape Verde: General Description[21]

Cape Verde is a country with a total population of 491.875 individuals[22] distributed over nine islands. In 1975, the country became independent from Portugal and in 1991 democracy was established. In 2012, GDP per capita (purchasing power parity adjusted) was approximately 6422 dollars and the unemployment rate was 7.6%.

As consequence of large migration outflows, Cape Verde is a country characterized by high levels of remittances. In the period 2000-2012 annual remittances represented on average 10.6% of total GDP which corresponds to more than one third of the value of exports for the same period. According to Batista et al. (2011), official statistics may undervalue total migrant remittances because they do not consider informal channels.

[19] Mesnard (2004); and Mesnard and Ravallion (2006) had a contribution of the importance of emigrants in creating new businesses in Tunisia through overcoming liquidity/credit constraints. Dustmann and Kirchkamp (2002) study the optimal migration duration and occupational change after returning of former Turkish emigrants from Germany who returned home in 1984.

[20] Simple estimates which do not tackle self-selection properly measure an increase of business ownership between 9% and 12%.

[21] In the following section, data come from the World Bank if not stated otherwise.

[22] Census 2010 from *Instituto Nacional de Estatística de Cabo Verde (INE)* - (Cape Verdean Office for National Statistics).

Historically, migration plays an important role in Cape Verdean society. Mass migration started due to famines and droughts[23]. In recent years, net annual migration in relation to total population was 6.5% in 2007 and 3.5% in 2012. Estimates from 2013,[24] show that around 170,000 Cape Verdeans are living abroad[25]. The most typical migration destinations are Portugal and the United States[26]. As most migrants decide to migrate to developed countries with higher productivity levels, it is interesting to study possible productivity gains caused by assimilation of migrants in these countries.

4. Data

4.1 Overview

The empirical analysis will be based on representative household survey data[27] collected between December 2005 and March 2006 by the CSAE[28] at the Oxford University. The data collection was conducted in 30 out of the 561 existing census areas in Cape Verde in four different islands: Santiago, Fogo, São Vicente and Santo Antão.

The sample is composed of 1066 resident households chosen to ensure its representativeness of Cape Verde. Overall, there is information on 7242 individuals of which 179 are return migrants.

4.2 Descriptive Statistics

In order to check the representativeness of the data collected, comparisons with official statistics were done, especially of migration specific data.

When comparing migrants' outflows between 2000 and 2005 with the official data, the following can be observed: migration outflows represented 2.02% of the average

[23] Batista et al. (2009).
[24] Migration Policy Institute from United Nations, Department Economic and Social Affairs (2013).
[25] Approximately 34% of Cape Verdean Population in Cape Verde in 2012.
[26] Data referring to this migration numbers will be presented in the next section.
[27] For a more complete description of the survey, please refer to Annex 3.
[28] The Center for the Study of African Economies.

annual population for this period according to the INE data, while in our sample the number of migration outflows represented 3.96% of the total sample for the same period. The weight of return migrants in the total number of migrants is around 19.5% in our sample comparing with 25% for the period between 1995 and 2000 (Census 2000). The two most common destinations of Cape Verdean migration are Portugal and the United States, representing respectively 55% and 20% of migration flows in the survey, which compares with 54% and 19% in the period 1995-2000[29].

The sample's gender composition is characterized by 51.84% of females while the official data shows a share of 50.5%[30] of females in the Cape Verdean population (2010). The percentage of male migrants in the sample is the same as the official statistics for the period 1995-2000, representing 51.4% of the total number of migrants.

In 2010, the population above 65 years old represented 6.4% of total population while it accounts for 5.7% of the whole project's sample. Individuals aged between 15-64 years old represent 65.9% of the sample, four percentage points more than its weight in Cape Verdean total population in 2010. The weight of individuals living in urban areas is 61.8% for both the sample and the official 2010 census data.[31]

5. Econometric Framework and Empirical Strategy

Initially, an estimation model analysis will be done taking into consideration potential estimation problems. From this, it will be possible to propose an efficient econometric estimation method.

We are interested in comparing the labor income outcomes of return migrants with those of non-migrants. However, as long as these two outcomes are exclusive, it is not possible to compare them in a fixed point in time for the same individual - at time *t*, we

[29] Census (2000).
[30] INE (2010) "Men and Women in Cape Verde, Facts and Numbers 2010".
[31] Total population data in this paragraph comes from INE (2010).

cannot compare the current income of a return migrant with the current income *he/she would have* earned if he had not migrated.

Current labour income of a return migrant is composed of two components: the counterfactual labour income that he/she would earn if he/she had not decided to migrate, plus the extra income earned because of migration. Supposing that the counterfactual non-migrant labour income would be the same for migrant and non-migrant groups, the causal effect of migration would be the difference between the earnings of two individuals with the same observable characteristics[32]. However, it is unlikely that this assumption is valid. Generally, it can be concluded that differences between migrants and non-migrants are not simply the causal effect of migration due to individual self-selection. Self-selection can be caused by observable and unobservable characteristics.

Studying self-selection is therefore important not only to avoid a biased empirical analysis, the nature of selection is in itself an extremely important research question to understand migrations flows.

5.1 Ordinary Least Square (OLS) Estimation

As a starting point, the following Ordinary Least Square Estimation model will be analyzed:

$$(1)\ \ln(Y_i) = \alpha_i + R_i\theta + X_i\beta + \varepsilon_i$$

Where $\ln(Y_i)$ represents the logarithm of individual *i*'s monthly labor income in equation 1, which serves as a proxy of labour productivity; R_i is a binary variable that states whether individual *i* is a return migrant; and X_i is a vector of individual

[32] With the exception of the migration variable.

characteristics of individual *i* such as age, gender and personal occupation, that may affect labor income.

The coefficient of interest (θ) will identify the causal effect of return migration on labor income if the following condition is satisfied: the error term of the equation (ε_i) is not correlated with the decision of return migration (R_i). One possibility would be incorporating all variables that influence the decision of migration as controls to get rid of endogeneity. However, it is hard to believe that one can measure and incorporate in the regression all factors influencing migration decisions. As long as there are unobserved characteristics which influence the outcome of interest differently across groups of migrants and non-migrants, equation 1 will suffer from a selection bias leading to a biased causal effect coefficient. This biased coefficient from equation 1 will be extremely useful to compare with an unbiased coefficient[33] and understand the nature of self-selection.

5.2. Nearest Neighbor Matching (NNM) Estimation

Nearest Neighbor Matching estimation compares individuals from different groups within the sample: return migrants and non-migrants. The idea behind the method is to set a certain number of variables to be similar or equal among groups (e.g. age, gender). Then, the impact of return migration on productivity can be estimated by getting the differences between treated and non-treated individuals. Matching is not necessarily done on a one-to-one comparison, one can set *n-to-n* comparison[34] estimation. The treatment coefficient is calculated by subtracting non-migrants' income average from migrants' income average. As the OLS estimation, this method only generates unbiased estimators if there is no selection bias.

[33] In the next sub-sections it will be discussed how to estimate an unbiased estimator in these conditions.
[34] Instead of taking into account the individual characteristics of a single person, it is calculated by doing an average of n similar individuals to avoid outliers' related problems.

Compared to OLS, Nearest Neighbor Matching is less restrictive in terms of the observable characteristics (*it just compares "comparable" individuals*) and it does not need to be a linear functional form as in OLS.

In section 6, results of nearest neighbor matching estimation will be presented together with its results.

5.3 Instrumental Variable (IV) Estimation

5.3.1 Methodology

In order to overcome any selection bias, instrumental variable estimation was performed to identify the causal effect of return migration on labor income.

$$(2)\ \ln(Y_i) = \alpha_i + R_i\theta iv + X_i\beta + \varepsilon_i$$

$$(3)\ R_i = \phi_i + X_i\delta + IV\varphi + \in_i$$

An instrument is a variable or a set of variables (Z_i) used as a proxy of the return migration variable of interest (R_i) that is not correlated with the dependent variable, Y_i. It can be decomposed in two components: the part correlated with ε_i and the one which is not correlated. When isolating the uncorrelated component, it is possible to estimate an unbiased coefficient for the regressor of interest, R_i . A proper instrument must obey the following conditions:

$$(4)\ \text{cov}(z_i, R_i) \neq 0$$

$$(5)\ \text{cov}(z_i, \varepsilon_i) = 0$$

Indeed, the instrumental variable must be correlated with the instrumented variable (R_i) and it must be exogenous, meaning that the error term in the explanatory equation (equation 2) cannot be correlated with the instrument. Instrument(s) must be

correlated with the dependent variable only through the instrumented variable; it cannot be related with ε_{rj} (unobservable characteristics such as ability, courage, etc).

The instrumental variable estimation process we follow is Two-Stage Least Squares (2SLS) and is based on equations 2 and 3. Equation 3 is the first stage of the estimation (OLS procedure) where the instrumented variable (R_i) is estimated based on the instruments selected (IV) and other controls. Then, predicted values of R ($\hat{R}$) of the first stage equation are computed.

$$(6)\ R_i = \emptyset + \hat{X}_i\delta + IV\varphi$$

Then it is possible to estimate the model presented in equation 2 using OLS where $\ln(Y_i)$ is regressed on the predicted values of R ($\hat{R}$) from the first stage equation, which provides an unbiased coefficient on return migration (θiv). Note that standard errors need to be adjusted appropriately to be valid.

5.3.2. Choice of Instrumental Variables

In order to conduct the 2SLS estimation, it is necessary to find a variable that is not directly related with actual income from labour and is related with the probability of migrating and return. Based on the work made by Batista et al. (2009) and Batista et al. (2012) a set of macroeconomic variables was chosen to be instruments. One of the ways of instrumenting migration decisions was through unemployment rates and nominal GDP per capita in the main destination countries[35]. Batista et al. (2012) use changes in GDP per capita[36] in Mozambique and in the destination countries. The instruments selected in

[35] Batista et al. (2009).
[36] And exchange rates.

this study are unemployment rates and the percentage change of the unemployment rates in comparison with the previous year for the main destination countries[37].

The reasoning behind the selection of this instrument is the following: on one hand, unemployment rates and their variations in destination countries are related with the probability of a migrant to get/keep a job abroad which may influence the decision of migrating and returning. On the other hand, unemployment rates abroad do not seem to be directly related with current labour income. The instrument is composed by four variables per country. For the returning migrants these are: unemployment rates in the year of migration and in the year of return and the yearly variation (percentage) of the unemployment for the same years. For the non-migrants: unemployment rate and its yearly variation for the years in which the individual has the average age of migrating and the average age of returning in the sample[38]. This method can be interpreted as the age in which a non-migrant was more likely to migrate. This approach is made to create a variable that corrects from self-selection in both migration and return stages.

5.4. Testing Instrument's Quality

After choosing an instrument, one should know whether it is a valid instrument. It is necessary to test the conditions presented in equations 4 and 5.

5.4.1. Instrument Exogeneity: Hansen Test

The model is characterized by an overidentified system (several instruments for one instrumented variable), which allows testing for instrument exogeneity. The most appropriate test for our model is the Hansen Test, which is a derivation of the Sargan Test[39]. This test is built by computing the residuals from the instrumental variable's second stage and regressing them on all exogenous variables. The null hypothesis states

[37] The countries are Portugal, United States, Spain, Switzerland, Italy, Luxembourg and Netherlands.
[38] The average age of migration is 36 years old and the age of return is 42.
[39] For cases of cluster robust statistics.

that the instrument is correlated with the residuals (endogenous coefficient)[40]. To consider an instrument exogenous, it is necessary to reject the previous hypothesis. The criteria adopted to reject the null will be a p-value above 0.15 which is commonly used in the literature.

5.4.2. Strength of the Instrument: Stock and Yogo[41] Procedure

An exogenous instrument is a necessary but not a sufficient condition to have a valid instrument. It needs to be a strong instrument, meaning that the correlation with the endogenous variable must hold. The test used to validate this condition is the one proposed by Stock and Yogo (2005). It is based on Cragg-Donald (1993)[42] test made for a single endogenous variable which is simply an F-Statistic of the first stage regression (equation 3). The null hypothesis states that the instrument is weak and the test statistic is an F-Statistic based Kleibergen-Paap Wald Statistic[43]. In order to reject the null hypothesis, Kleibergen-Paap F-Test statistic above 10 is required according to most of the literature.

6. Estimation Results[44]

6.1. Estimation from Baseline Models

In this section, main empirical results from the models specified previously will be presented. All individuals younger than 18 years old were excluded from the models. The previous restriction tries to avoid inclusion of individuals who are not labour force. Then, income gains from migration are estimated using three different sets of controls[45].

[40] The test-statistics follow a chi-square distribution with k-m degrees of freedom (k is the number of excluded instruments and m, the number of endogenous variables.
[41] Stock, and Yogo (2005). "Testing for Weak Instruments in Linear IV Regression", in *Identification and Inference for Econometric Models: Essays in Honor of Thomas Rothenberg*, ed. D. Andrews and J. Stock, 80-108. Cambridge University Press.
[42] Cragg-Donald Wald Statistics are not valid in this case because we are in the presence of cluster-robust statistics.
[43] Chi-Square distribuition following (k-m+1) degrees of freedom where k is the number of excluded instruments and m the number of endogenous regressors.
[44] All estimations presented in Annex 1.
[45] All controls and the differences across regressions are presented in Table 1.

The estimation methods were OLS, Nearest Neighbor Matching[46] and Instrumental Variable. With the exception of the Instrumental Variable procedure, all models will have 1011 observations where 59 of them are return migrants[47].

In the first approach made (Table 1), the effect of return migration on labour income is 20-21% in the OLS models compared to 41-48% in the models using instruments. OLS coefficients are statistically significant at a 10% level while the ones using instrumental variable are significant at a lower level (5%).

The difference among coefficients suggest that migrants select themselves negatively in terms of unobserved characteristics. Selection of the unobservable will be tested later in this section.

It is relevant to highlight that both models show that variables as *age, schooling, having a business and being male* cause a positive impact on labour impact[48]

Matching coefficients have a magnitude of 0.36 and are highly significant[49]. Coefficients' magnitudes are between the ones estimated by the other two methods.

6.2. Inclusion of Migration Specifics

After having shown that migration seems to have an impact on productive skills, it will be interesting to study: *i)* if this is a time cumulative effect; *ii)* the channels behind this effect. To answer to these questions, further estimation was done including post migration controls[50]: migration's duration (years) and job changes after migration[51]. Based on the models presented previously, it was build a model to test if *destination country is relevant* to determine productive skills gains (Table 4).

[46] Forcing exact match for age education and gender. The number of matches per observation will be at least 10.
[47] In this method we have 743 observations with 59 migrants.
[48] Significant at least at a 5% level for all models in Table 1.
[49] Significant at a 1% level.
[50] We control for duration using two variables: total duration in years and the square of total duration
[51] For return migrants, the survey has information about the current type of job and the one before migration. The variable specified in the models equals one when one individual change his job type and migration.

Nearest neighbor matching procedure is not used in this analysis because when including post-migration characteristics, it is not possible to compare both groups properly.

When adding the controls for migration's duration (Table 2), one cannot reject the hypothesis that an extra year spent abroad by a return migrant does not affect labour income[52]. However, return migration by itself partially explains the outcome of interest. OLS coefficients are significant at a 5% level and IV estimation is significant at 5% or 10% level depending on the model (highest p-value equals 7%). Instrumental Variable coefficients are still higher than the ones estimated by OLS but the gap between the two estimation methods is narrower (OLS of 36-38% against IV of 39-48%). It seems that productive skills gained abroad mostly depend on the event of migrating and not on the total time spent abroad.

To study the impact of changes between prior and post migration jobs, a binary[53] control was included to the model presented above. Table 3 shows that the previous effect does not explain income gains. Return migration itself still causes an increase in labour income[54]. Opposing to the models without job changes, the gap between the OLS and instrumental variable estimation is relatively wide[55] which may result from selection of the unobserved characteristics.

When evaluating the role of destination countries in income gains, no instrument was found that would explain the decision of choosing a specific destination country. Most of migrants decide to go to the United States or Portugal[56], so the impact of

[52] Both variables are not individuals or jointly significant at a 10% level in any model regressed.
[53] Equals 1 if person has a different type of job, zero otherwise.
[54] Always significant at a 5% level. With the exception of one of the models with instruments, it is significant at a 1% level.
[55] Coefficient magnitude of 0.50-0.59 (models with instruments) comparing with 0.38-0.42 (OLS).
[56] Portugal and the United States representing respectively 55% and 20% of the whole migration in the survey.

migrating to these specific countries was estimated in three different sets of controls (Table 4). Post-migration controls like duration and occupational change are also included in the model to avoid endogeneity when measuring the role of the destination country itself.

Migrating to the United States seems to contribute more to labour income gains compared to Portugal (49-54% instead of 29-34%). The United States' coefficient is significant at a 10% level for two of the models while the one of Portugal is never significant at the previous significance level. On one hand, both coefficients together are significant at a 10% level. The results should be seen in a very careful way due to the fact that no valid instrument is used to tackle potential endogeneity.

On the other hand, there is no evidence that migrating to the United States causes a higher increase in labour income (after returning) than Portugal.

For all models estimated with post-migration controls, the main conclusions about socio-economic controls are similar to the ones presented previously.

6.3. Self-Selection of the Unobserved Characteristics

It was discussed through the project that individuals that decide to migrate and return may have some specific characteristics which are non-observable. The use of valid instruments and their comparison with regular estimators should give us an answer on that.

In all models estimated, the main coefficient of interest is higher in the instrumental variable approach than in its OLS equivalent estimation. Underestimation by OLS may reflect negative selection on the unobserved characteristics of migrants. To verify the presence of negative self-selection, a statistical test was computed which

compares the OLS and IV equivalent coefficients[57]. In case of negative self-selection, the null hypothesis should be rejected which implies that coefficients are equal.

When dividing the models by post-migration controls[58], there is only some weak evidence of negative self-selection of the unobserved characteristics in the group without post-migration controls. In the group with no post-migration controls, the p-value for the selection test is approximately 12.6% and 16.8% for two of the models (Table 6). For all of the other models, the null is rejected for a confidence interval above 20%. In most of the cases, the OLS underestimation is not enough to prove the presence of negative self-selection of the unobserved characteristics.

6.4. Robustness Tests

Until this point, all conclusions were based on the idea that the models are robust. It is however necessary to prove this. Two questions will be addressed in this section: *i)* are the instruments selected valid? *ii)* Are the models representative for the whole sample or is there any problem caused by the non-included individuals who do not report their wage?

6.4.1. Instrumental Variables Validity

In section 5, the criteria behind instrumental variable selection was discussed based on economic theory and literature examples. Table 5 summarizes all tests[59] necessary for every regression done with an instrument.

According to the criteria set previously, instruments seem to be valid. First, Kleibergen-Paap Wald's F-statistic is above 10 in all cases which means that the instrument is correlated with the instrumented variable. It should be taken into account

[57] Both models with the same controls.
[58] The three following groups: one with no post-migration controls; other with duration as post-migration control and another with all post-migration controls (duration and job change).
[59] F-Statistic based Kleibergen-Paap Wald and Hansen test.

that in the models without post-migration characteristics, F-statistics are slightly above 10 (between 10.3 and 10.4). Moreover, there is no evidence that the selected instruments suffer from endogeneity, having a Hansen p-value above 0.15 for all models considered. There is also no evidence that the instruments estimated do not follow the two fundamental conditions[60] to form a proper instrument.

6.4.2. Heckman Correction Procedure

In survey data, it is common to have missing values of certain variables which may be a result of voluntary omission or unawareness. In the project's sample, income from labour is the variable where omissions occur more frequently and this may influence the results. To describe the potential problem, only 59 out of 167 return migrants reported their labour income. As long as omissions may be related with specific characteristics, we cannot be sure that our sub-sample is representative. The Heckit model[61] was built to consider individuals with missing values[62] in certain variables, tackling self-selection.

The tests done were a comparison between the impact of return migration on labour income in the Heckit model and the OLS model using the same controls. If we reject the hypothesis that both coefficients are different, the OLS model will be considered representative. As long as OLS is considered representative, the models that have instruments will also be considered representative. There is no evidence that OLS and Two-Stages Least Squares models are not representative of the sample, since the null hypothesis is never rejected for a confidence interval below 40% (Table 7).

No model for correcting excess of zeros was done (e.g. Double Hurdle Model) due to the fact there are few individuals reporting their labour income as zero.

[60] Exogenous and correlated with the instrumented variable.
[61] Also known as Heckman Correction Model.
[62] Two stages method: the first stage is to run a model that predicts labour income (in this case) based on other variables; the second stage predicts the impact of each control on labour income (previous predictions included in the model).

7. Conclusions

Studying costs and benefits of migration is extremely important in a country like Cape Verde given its socio-demographic characteristics. This project tried to answer whether migrating and returning to the origin country improves income from labour. This was done by using instrumental variables to tackle self-selection problems. The project shows that return migrants have a wage premium caused by migration between 40.8 and 58.8% when using instrumental variable estimation which is considered the most proper method between the ones chosen by the author. The selected instruments were based on macroeconomic shocks (destination countries' unemployment rates and their annual variations) and was proved to be valid: correlated with the decision of migration and exogenous (not correlated with variables as courage or risk preferences).

OLS and Nearest Neighbor Matching seem to undervalue the impact of migration on labour income when comparing with instrumental variable estimation. However, there is no evidence that these methods are statistically different between each other; one cannot guarantee the presence of negative self-selection of the unobservable characteristics.

While analyzing the mechanisms behind the impact stated above, there is no evidence that migration's duration and occupational changes after migrating have a direct impact on labour income. There is scarce evidence that migrating to the United States has a higher impact on home labour income when comparing with migrating to Portugal. Socio-demographic characteristics such as age, gender and schooling seem to influence labour income as expected.

As long as it is believed that migrating does not work as a signaling instrument to identify individual ability, one can conclude that migrants in Cape Verde have productivity gains caused by experience obtained abroad.

In terms of policy implications, central and local authorities should try to reduce costs of returning to the country of origin in order to improve their stock of human capital. First, reducing the cost of return can be done indirectly by reducing fees for cash flows from abroad (e.g. savings of migration). Second, reducing bureaucracy such as recognizing qualifications attained abroad. These policies may incentive migrants to return.

The attempt of reducing costs of migration may be a good idea in this specific framework but may come with extra costs such as the temporary reduction of labour supply or even political costs. Hence, one should study the specific impact of each potential policy and clearly evaluate its benefits and costs.

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Productivity Gains from Migration: An Analysis of Cape Verdean Return Migrants

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-Annexes-

A Project carried out under the supervision of:

Professor Cátia Batista

Annex 1: Labelling and Estimation

return migrant: Equal 1 if individual is a return migrant, zero otherwise.

period abroad: Total number of years that individuals migrated (one or more destinations).

period abroad square: Square of the total number of years that individuals migrated (one or more destinations).

occupational change after migrating: Equals 1 if individual change main job type before-after migration, 0 otherwise.

migrated_usa: Equals 1 if migrated to USA and return, 0 otherwise.

migrated_portugal: Equals 1 if migrated to Portugal and return, 0 otherwise.

age: Age (years).

age2: Age square (years).

Schooling years: Education level (no eduation, primary education, secondary education, technical school, etc).

Marital status: Marital status.

Num child: Number of children.

Max household schooling: Maximum education level (no eduation, primary education, secondary education, technical school, etc) in the household.

male: Equals 1 if male, 0 female.

Southern island (Santiago or Fogo): Households living in Southern (Santiago e Fogo) vs. Northern (Sao Vicente and Santo Antão) group of surveyed islands.

urbanst: Equal 1 if individual lives in an urban area, 0 otherwise.

Business owner: Equal 1 if individual has a business, 0 otherwise.

Occupation: Type of job/occupation

Average regional unemployment: Average unemployment in individual´s region.

Percent of region's return migrants: Percentage of a region's residents that are international return emigrants.

Ilha_: Island where individual lives. Ilha_1 (omitted) is Santiago Island; ilha_2 corresponds to São Vicente, ilha_3 Santo Antão and ilha_4 Fogo.

Controls	(1) ols	(2) ols	(3) ols	(4) iv	(5) iv	(6) iv	(7) matching	(8) matching	(9) matching
return migrant	0.210*	0.205*	0.206*	0.446**	0.408**	0.475**	0.363***	0.363***	0.363***
	(0.122)	(0.122)	(0.123)	(0.192)	(0.193)	(0.200)	(0.129)	(0.129)	(0.129)
age	0.0704***	0.0705***	0.0714***	0.0753***	0.0754***	0.0766***			
	(0.00816)	(0.00817)	(0.00815)	(0.00930)	(0.00926)	(0.00933)			
age2	-0.000681***	-0.000678***	-0.000687***	-0.000734***	-0.000730***	-0.000745***			
	(8.36e-05)	(8.39e-05)	(8.38e-05)	(9.47e-05)	(9.46e-05)	(9.65e-05)			
school years	0.188***	0.188***	0.199***	0.173***	0.173***	0.184***			
	(0.0152)	(0.0154)	(0.0155)	(0.0181)	(0.0182)	(0.0182)			
marital status	0.00236	2.55e-05	0.00111	-0.00534	-0.00685	-0.0116			
	(0.0239)	(0.0241)	(0.0247)	(0.0301)	(0.0298)	(0.0311)			
num child	0.0133	0.0121	0.0133	0.00692	0.00503	0.00616			
	(0.0101)	(0.0104)	(0.0101)	(0.0134)	(0.0139)	(0.0134)			
max household schooling	0.0206**	0.0202***	0.0183**	0.0244**	0.0257***	0.0217**			
	(0.00826)	(0.00834)	(0.00826)	(0.00955)	(0.00977)	(0.00966)			
male	0.465***	0.459***	0.474***	0.467***	0.457***	0.476***			
	(0.0475)	(0.0487)	(0.0480)	(0.0553)	(0.0572)	(0.0561)			
southern islands (Santiago or Fogo)	0.218***	0.199**		0.154**	0.0733				
	(0.0587)	(0.0866)		(0.0676)	(0.102)				
urban area	0.270***	0.309***		0.246***	0.336***				
	(0.0515)	(0.0703)		(0.0600)	(0.0838)				
business owner	0.258**	0.258**	0.284***	0.342***	0.335***	0.372***			
	(0.106)	(0.105)	(0.106)	(0.116)	(0.114)	(0.115)			
occupation	-0.0230***	-0.0234***	-0.0187**	-0.0296***	-0.0307***	-0.0245**			
	(0.00833)	(0.00852)	(0.00827)	(0.0101)	(0.0104)	(0.0101)			
average regional unemployment	0.507	0.709		0.900	1.247*				
	(0.587)	(0.598)		(0.707)	(0.715)				
percent of region's return migrants	-2.336***	-2.586***	-2.676***	-3.098***	-3.274***	-3.123***			
	(0.886)	(0.930)	(0.950)	(0.999)	(1.043)	(1.084)			
São Vicente Island		-0.0112	-0.0408		-0.129	-0.00707			
		(0.118)	(0.0704)		(0.138)	(0.0817)			
Fogo Island		0.138	-0.0259		0.200*	0.00237			
		(0.0993)	(0.0902)		(0.115)	(0.102)			
Santo Antão Island			-0.319***			-0.185**			
			(0.0754)			(0.0878)			
Constant	2.179***	2.148***	2.515***	2.200***	2.165***	2.509***			
	(0.234)	(0.238)	(0.201)	(0.280)	(0.285)	(0.233)			
Observations	1,011	1,011	1,011	743	743	743	1,011	1,011	1,011
R-squared	0.392	0.394	0.380	0.389	0.393	0.374			
Instruments									
F-statistic on exc. instruments	-	-	-	10,417	10,425	10,314	-	-	-
Hansen J Statistic	-	-	-	33,175	34,518	34,670			
P-value of overiden. Test	-	-	-	0,271	0,221	0,216	-	-	-

Table 1 - Impact of being a return migrant in labour Income (logarithm): Individuals above 18 years-old. OLS, IV and NNMatch Estimates.
Robust standard errors in parentheses.
Post-Migration Controls: not included.
*** p<0.01, ** p<0.05, * p<0.1
Instrument is composed by: Unemployment rates at main destination countries (Portugal, USA, Netherlands, France, Italy, Luxembourg, Spain, UK).

Controls	(1) ols dur	(2) ols dur	(3) ols dur	(4) iv dur	(5) iv dur	(6) iv dur
return migrant	0.355**	0.370**	0.378**	0.416*	0.392*	0.478**
	(0.154)	(0.153)	(0.156)	(0.218)	(0.217)	(0.228)
period abroad	-0.0547	-0.0634	-0.0658	-0.0648	-0.0732	-0.0823
	(0.0489)	(0.0488)	(0.0474)	(0.0618)	(0.0624)	(0.0623)
period abroad square	0.00165	0.00196	0.00200	0.00245	0.00272	0.00308
	(0.00165)	(0.00167)	(0.00159)	(0.00283)	(0.00281)	(0.00280)
occupational change after migrating						
age	0.0703***	0.0704***	0.0713***	0.0753***	0.0754***	0.0766***
	(0.00815)	(0.00816)	(0.00814)	(0.00925)	(0.00920)	(0.00929)
age2	-0.000679***	-0.000675***	-0.000684***	-0.000730***	-0.000724***	-0.000739***
	(8.33e-05)	(8.35e-05)	(8.35e-05)	(9.47e-05)	(9.44e-05)	(9.64e-05)
school years	0.188***	0.189***	0.199***	0.176***	0.175***	0.187***
	(0.0152)	(0.0154)	(0.0155)	(0.0182)	(0.0183)	(0.0183)
marital status	0.000724	-0.00202	-0.00106	-0.00379	-0.00560	-0.0105
	(0.0239)	(0.0240)	(0.0247)	(0.0301)	(0.0299)	(0.0312)
num child	0.0130	0.0116	0.0128	0.00603	0.00378	0.00485
	(0.0102)	(0.0104)	(0.0102)	(0.0135)	(0.0140)	(0.0136)
max household schooling	0.0206**	0.0202**	0.0182**	0.0240**	0.0253***	0.0212**
	(0.00826)	(0.00833)	(0.00825)	(0.00955)	(0.00976)	(0.00966)
male	0.467***	0.461***	0.476***	0.469***	0.457***	0.477***
	(0.0474)	(0.0485)	(0.0479)	(0.0554)	(0.0574)	(0.0562)
southern islands (Santiago or Fogo)	0.216***	0.195**		0.156**	0.0698	
	(0.0585)	(0.0857)		(0.0674)	(0.102)	
urban area	0.266***	0.307***		0.245***	0.343***	
	(0.0515)	(0.0702)		(0.0600)	(0.0841)	
business owner	0.264**	0.265**	0.291***	0.350***	0.344***	0.384***
	(0.105)	(0.104)	(0.105)	(0.114)	(0.112)	(0.114)
occupation	-0.0229***	-0.0233***	-0.0186**	-0.0295***	-0.0307***	-0.0244**
	(0.00832)	(0.00851)	(0.00827)	(0.0102)	(0.0105)	(0.0101)
average regional unemployment	0.488	0.705		0.899	1.286*	
	(0.589)	(0.600)		(0.706)	(0.714)	
percent of region's return migrants	-2.363***	-2.642***	-2.734***	-3.040***	-3.265***	-3.123***
	(0.882)	(0.928)	(0.943)	(0.990)	(1.035)	(1.077)
São Vicente Island		-0.0109	-0.0372		-0.136	-0.00511
		(0.118)	(0.0709)		(0.138)	(0.0816)
Fogo Island		0.151	-0.0119		0.223*	0.0229
		(0.101)	(0.0918)		(0.117)	(0.103)
Santo Antão Island			-0.314***			-0.183**
			(0.0740)			(0.0878)
Constant	2.187***	2.154***	2.516***	2.192***	2.153***	2.503***
	(0.234)	(0.239)	(0.201)	(0.278)	(0.284)	(0.231)
Observations	1,011	1,011	1,011	743	743	743
R-squared	0.394	0.396	0.382	0.391	0.396	0.377
Instruments						
F-statistic on exc. instruments	-	-	-	13,974	13,702	14,456
Hansen J Statistic	-	-	-	34,857	35,887	36,424
P-value of overiden. Test	-	-	-	0,209	0,177	0,162

Table 2 - Impact of being a return migrant in labour Income (logarithm): Individuals above 18 years-old (OLS, IV).
Post-Migration Controls: Duration.
*** p<0.01, ** p<0.05, * p<0.1
Instrument is composed by: Unemployment rates at main destination countries (Portugal, USA, Netherlands, France, Italy, Luxembourg, Spain, UK).

Controls	(7) ols occ	(8) ols occ	(9) ols occ	(10) iv_occ	(11) iv_occ	(12) iv_occ
return migrant	0.382**	0.392**	0.419**	0.520*	0.501*	0.588**
	(0.191)	(0.189)	(0.194)	(0.287)	(0.256)	(0.255)
period abroad	-0.0516	-0.0608	-0.0609	-0.0677	-0.00363	0.00712
	(0.0457)	(0.0459)	(0.0445)	(0.0636)	(0.0539)	(0.0529)
period abroad square	0.00150	0.00183	0.00177	0.00248	6.61e-05	-0.000330
	(0.00154)	(0.00157)	(0.00149)	(0.00271)	(0.00243)	(0.00238)
occupational change after migrating	-0.0709	-0.0586	-0.108	-0.199	-0.165	-0.235
	(0.193)	(0.195)	(0.190)	(0.284)	(0.267)	(0.256)
age	0.0703***	0.0704***	0.0713***	0.0752***	0.0752***	0.0764***
	(0.00816)	(0.00816)	(0.00814)	(0.00936)	(0.00938)	(0.00943)
age2	-0.000679***	-0.000675***	-0.000684***	-0.000729***	-0.000728***	-0.000743***
	(8.33e-05)	(8.36e-05)	(8.36e-05)	(9.55e-05)	(9.57e-05)	(9.74e-05)
school years	0.188***	0.189***	0.200***	0.176***	0.173***	0.184***
	(0.0153)	(0.0154)	(0.0155)	(0.0184)	(0.0184)	(0.0184)
marital status	0.00118	-0.00163	-0.000322	-0.00283	-0.00616	-0.0106
	(0.0240)	(0.0241)	(0.0248)	(0.0305)	(0.0301)	(0.0312)
num child	0.0133	0.0119	0.0133	0.00682	0.00565	0.00719
	(0.0103)	(0.0106)	(0.0103)	(0.0137)	(0.0145)	(0.0139)
max household schooling	0.0204**	0.0200**	0.0180**	0.0236**	0.0254**	0.0214**
	(0.00833)	(0.00841)	(0.00829)	(0.00974)	(0.0100)	(0.00988)
male	0.467***	0.461***	0.476***	0.469***	0.457***	0.476***
	(0.0474)	(0.0485)	(0.0479)	(0.0560)	(0.0582)	(0.0569)
southern islands (Santiago or Fogo)	0.214***	0.194**		0.155**	0.200**	
	(0.0586)	(0.0856)		(0.0683)	(0.0942)	
urban area	0.265***	0.305***		0.242***	0.334***	
	(0.0518)	(0.0708)		(0.0605)	(0.0849)	
business owner	0.264**	0.265**	0.291***	0.353***	0.338***	0.374***
	(0.105)	(0.104)	(0.105)	(0.115)	(0.114)	(0.115)
occupation	-0.0229***	-0.0233***	-0.0186**	-0.0292***	-0.0305***	-0.0243**
	(0.00832)	(0.00851)	(0.00828)	(0.0103)	(0.0106)	(0.0103)
average regional unemployment	0.468	0.688		0.857	1.215*	
	(0.601)	(0.612)		(0.716)	(0.724)	
percent of region's return migrants	-2.355***	-2.634***	-2.719***	-3.068***	-3.311***	-3.159***
	(0.878)	(0.923)	(0.937)	(1.019)	(1.072)	(1.122)
São Vicente Island		-0.0108	-0.0374			-0.00717
		(0.118)	(0.0707)			(0.0829)
Fogo Island		0.150	-0.0120		0.201*	0.00432
		(0.101)	(0.0918)		(0.119)	(0.104)
Santo Antão Island			-0.312***		0.127	-0.185**
			(0.0740)		(0.140)	(0.0893)
Constant	2.190***	2.157***	2.514***	2.201***	2.046***	2.509***
	(0.236)	(0.240)	(0.201)	(0.283)	(0.285)	(0.232)
Observations	1,011	1,011	1,011	730	730	730
R-squared	0.394	0.396	0.382	0.398	0.403	0.384
Instruments						
F-statistic on exc. instruments	-	-	-	13,974	13,702	14,456
Hansen J Statistic	-	-	-	33,266	34,431	34,722
P-value of overiden. Test	-	-	-	0,217	0,206	0,204

Table 3 – Impact of being a return migrant in labour Income (logarithm): Individuals above 18 years-old (OLS, IV).
Post-Migration Controls: Duration and Occupational Change.
*** p<0.01, ** p<0.05, * p<0.1
Instrument is composed by: Unemployment rates at main destination countries (Portugal, USA, Netherlands, France, Italy, Luxembourg, Spain, UK).

Controls	(1) mig_pt_us	(2) mig_pt_us	(3) mig_pt_us
migrated usa	0.548*	0.512*	0.487
	(0.314)	(0.300)	(0.307)
migrated portugal	0.337	0.337	0.285
	(0.261)	(0.255)	(0.254)
period abroad	-0.0323	-0.0236	-0.0272
	(0.0444)	(0.0415)	(0.0396)
period abroad square	0.000585	0.000313	0.000423
	(0.00161)	(0.00153)	(0.00149)
occupational change after migrating	-0.101	-0.0867	-0.0660
	(0.212)	(0.212)	(0.209)
age	0.0721***	0.0703***	0.0719***
	(0.00813)	(0.00816)	(0.00812)
age2	-0.000687***	-0.000677***	-0.000690***
	(8.37e-05)	(8.37e-05)	(8.34e-05)
school years	0.202***	0.188***	0.200***
	(0.0158)	(0.0155)	(0.0156)
marital status	0.00771	0.00683	0.00242
	(0.0253)	(0.0240)	(0.0249)
num child	0.0138	0.0143	0.0126
	(0.0106)	(0.0105)	(0.0103)
max household schooling	0.0204**	0.0197**	0.0182**
	(0.00845)	(0.00844)	(0.00835)
male	0.469***	0.464***	0.478***
	(0.0469)	(0.0467)	(0.0475)
business owner	0.283***	0.271**	0.283***
	(0.106)	(0.105)	(0.105)
occupation	-0.0192**	-0.0229***	-0.0180**
	(0.00842)	(0.00836)	(0.00826)
percent of region's return migrants	-2.106**	-2.379***	-2.704***
	(0.902)	(0.891)	(0.941)
Santiago Island			-0.0391
			(0.0706)
São Vicente Island			-0.313***
			(0.0734)
Fogo Island			-0.0240
			(0.0933)
urban area		0.241***	
		(0.0524)	
average regional unemployment		-0.450	
		(0.549)	
Constant	2.361***	2.491***	2.496***
	(0.204)	(0.220)	(0.200)
Observations	1,011	1,011	1,011
R-squared	0.367	0.384	0.382

Table 4 – Impact of migration destination in labour Income (logarithm): Individuals above 18 years-old (OLS). Post-Migration Controls: Duration and Occupational Change.
*** p<0.01, ** p<0.05, * p<0.1

Table	Table 1			Table 2			Table 3		
Model	(4) iv	(5) iv	(6) iv	(4) iv dur	(5) iv dur	(6) iv dur	(4) iv_occ	(5) iv_occ	(6) iv_occ
F-statistic on exc. instruments	10,417	10,425	10,314	13,974	13,702	14,456	13,974	13,702	14,456
Hansen J Statistic	33,175	34,518	34,670	34,857	35,887	36,424	34,961	35,655	36,213
P-value of overiden. Test	0,271	0,221	0,216	0,209	0,177	0,162	0,201	0,183	0,166

Table 5: Summary of previous tables' instrument tests (Hansen and K-Paap Test)

	Table 1			**Table 2**			**Table 3**		
	ols (1) vs iv(4)	**ols (2) vs iv(5)**	**ols (3) vs iv(6)**	**ols (1) vs iv(4)**	**ols (2) vs iv(5)**	**ols (3) vs iv(6)**	**ols (1) vs iv(4)**	**ols (2) vs iv(5)**	**ols (3) vs iv(6)**
p-value	0,168	0,2372	0,1259	0,7177	0,8912	0,5646	0,5353	0,6538	0,4946

Table 6: Test hypothesis $\theta iv \neq \theta ols$.

	Table 1			**Table 2**			**Table 3**		
	ols (1) vs heck	**ols (2) vs heck**	**ols (3) vs heck**	**ols (1) vs heck**	**ols (2) vs heck**	**ols (3) vs heck**	**ols (1) vs heck**	**ols (2) vs heck**	**ols (3) vs heck**
p-value	0,4942	0,4546	0,5109	0,619	0,5262	0,5981	0,7795	0,6911	0,6104

Table 7: Test hypothesis $\theta heckman \neq \theta ols$. Heckman model considers the first step probability of migrating and returning (individuals older than 17 years-old) whose controls are age, age square, education, marital status, number of children and gender. The second step has exactly the same controls as the ols regression

Annex 2: Borjas and Bratsberg Model (1996)

The model created by Borjas and Bratsberg explains the relation between unobserved characteristics and decision of migrating and returning. The reasoning behind migrating may be increasing productivity abroad and come back home to get the returns; migrants can decide to stay abroad for ever. Both possibilities have the same goal: Maximize life-cycle earnings.

Individual's human capital is composed by two parts: one that depends on observed characteristics (age, schooling, etc) and one depending on unobserved factors such as courage, risk aversion (component *v* in the models). The return of each factor will change depending on where the individual is (home or abroad).

1) $W_{home} = \Omega_{home}(X) + v$
2) $W_{abroad} = \Omega_{abroad}(X) + \rho v + \varepsilon$

Where W refers to life-cycle earnings at home or abroad; Ω is a component that comes from observed characteristics, *v* is a component that comes from unobserved characteristics and ε and wage's uncertainty component. The ε only exists in the wage equation while abroad because one assumption of model states that individuals have uncertainty about wages before migrating (period when they decide whether they migrate).

When considering that individuals have productivity gains after a period abroad, the post-migration wage equation would be:

3) $W_{home} = \Omega_{home}(X) + v + k$, where *k* is the productivity gain abroad (variable of interest in this empirical project).

Life cycle earnings would be a linear combination between life-cycle earnings abroad and the ones at home plus productivity gains. It would not make sense to work at home before migrating (productivity gain assumption holding).

4) $W_{home\&abroad} = \partial * W_{abroad} + (1-\partial)*(W_{home} + k)$, where $W_{home\&abroad}$ is life-cycle earnings in a combination between home and abroad; ∂ is the fraction of working life abroad and *k* is the productivity gain abroad.

The authors also consider that there is a fixed cost of Migration (M) and Returning (R). A risk-neutral individual migrates when:

i) $Expected(W_{abroad}) - M > W_{home}$

ii) $Expected(W_{home\&abroad}) - M - R > W_{home}$

And he/she return home if:

iii) Conditions i) and ii) hold

iv) $W_{home} - R > W_{abroad}$; meaning that expectations according to earning abroad were not correct

v) $Expected(W_{home\&abroad}) - R > W_{aboard}$; Productivity gains at home make return optimal.

With the previous model the authors are able to sort individuals by unobserved characteristics:

Stay in the origin country:

$$\mathbf{(1-\rho)v \leq (\Omega_{home}(X) - \Omega_{abroad}(X) + k) + (M + R - k)/\partial}$$

Migrating:

$$\mathbf{(1-\rho)v > (\Omega_{home}(X) - \Omega_{abroad}(X) + k) + (M + R - k)/\partial}$$

Returning to the origin country:

$$(\Omega_{home}(X) - \Omega_{abroad}(X) + k) + (M + R - k)/\partial < (1-\rho)v \leq$$

$$\leq (\Omega_{home}(X) - \Omega_{abroad}(X) + k) - \frac{R}{1-\partial} - \varepsilon$$

While considering no uncertainty on wages abroad (ε = 0), unobserved characteristics determines who migrate. With unobserved characteristics are better paid abroad (ρ higher than 1), migrants will be individuals highly skilled in terms of unobserved characteristics and return migrants have incentives to migrate only temporary. So return migrants will be between migrants and non-migrants in terms of ability (ρ).

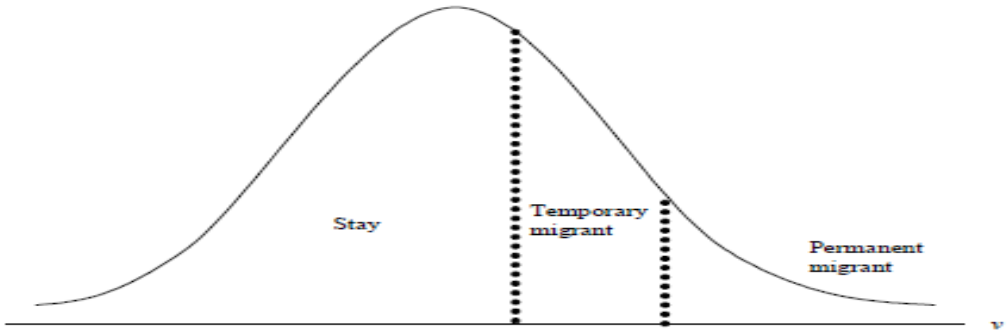

Figure 1: Ability's distribution and decision to migrate, from Lacuesta (2006)

The opposite conclusion will be taken if unobserved characteristics are better paid at home, the permanent migrants would be the individual with lower ability (v).

Comparing ability from a returning migrant with non-migrants might be used to determine the type of selection of migration in unobserved characteristics:

$$E(v|nonmig) < > E(v|retmig) < > E(v|nonretmig)$$

Positive selection in unobserved characteristics is reflexed by migrants having more ability than non-migrants.

Negative selection happens in opposite cases: return migrants have lower ability than non-migrants.

When the authors introduce the uncertainty component, the decision of migrating does not change but the period of migration may change. Some migrants may realize that migration is not as optimal as they though and they may decide to stay shorter periods. Return migrants continue to be in the middle of migrants and non-migrants in terms of unobserved characteristics.

To conclude, according to Borjas and Bratsberg, migrants are more similar in terms of unobserved characteristics/skills to return migrants than to non-migrants. Economically, return migration only make sense in two cases: individuals have productivity gains while abroad or their expectation about wages abroad were misleading.

Annex 3: Full Survey, English Version

Subject Recruitment and Corresponding Participation Consent

Good Morning/Good Afternoon.

I am part of a team conducting a study about the opinion of the population of CV on the quality of the public services in the last 20 years and the characteristics of the population concerning migration.

Approximately 1000 interviews will be conducted. You have been selected randomly and will only provide your name only if that is your wish (your name is not important for the study).

This study may be a valuable instrument for the improvement of the public services in CV.

Each interview has the approximate duration of 30 minutes.

This questionnaire is to be used in a research/scientific study. The initiative and conduction of this project is the sole responsibility of the University of Oxford, United Kingdom. This institution is totally independent of the institutions of CV, including its government.

The Ministry of Education of Cape Verde is informed of the conduction of this study. The Statistics Office of Cape Verde is informed and has agreed on the realization of this study.

Total anonymity is guaranteed upon request.

Any contact for pertinent answers about the research and research subjects' rights should be directed to:

Dr. Pedro Vicente (research team leader)
Email: pedro.vicente@economics.ox.ac.uk
Tel. +44-1865-281446
Center for the Study of African Economies
Department of Economics
University of Oxford
Manor Road Building, Oxford OX1 3UQ
United Kingdom

Participation in this study is voluntary. Refusal to participate will involve no consequence to the subjects of this study. The subject may discontinue participation at any time without penalty or loss of benefits to which he or she is otherwise entitled.

Would you like to participate in the study?

QUESTIONNAIRE

Instructions:
The questions of the questionnaire are mainly related with past impressions. We are going to ask you a memory effort. For us to be able to help you, we are going to ask some general questions regarding your past. With that information, we will be able to guide you in the questions regarding your opinions about the public services in the last 20 years.

(*TO BE COMPLETED BY THE INTERVIEWER*)
#: _____
INTERVIEWER: _____
DAY: _____
STARTING TIME: _____
PLACE: _____

ABILITY TO ANSWER THE QUESTIONNAIRE

Instructions: Firstly we are going to ask you a set of questions aimed at assessing if you are in position to help us.

1. This year are you 30 years or older? (AGE30)

Yes☐1 No☐0

IN CASE OF DOUBT ASK:
Were you born on the independence of CV in 1975?
Were you born on April 25th 1974 (Portuguese Revolution)?

2. Personal History

BEGIN BY ASKING:
Have you been a resident of CV in the last 20 years?
1985-1988 «end of single party»
2.1.1. Were you a resident of CV? (DPRES1)

Yes☐1 No☐0

IF NOT
2.1.2. Were your *direct* (Parents, Husband/Wife, Children) relatives resident in CV? (IPRES1)

Yes☐1 No☐0

1991-1997 «beginning of democracy»
2.2.1. Were you a resident of CV? (DPRES2)

Yes☐1 No☐0

IF NOT
2.2.2. Were your *direct* (Parents, Husband/Wife, Children) relatives resident in CV? (IPRES3)

Yes☐1 No☐0

2000-today «last 5 years»
2.3.1. Were you a resident of CV? (DPRES3)

Yes☐1 No☐0

IF NOT
2.3.2. Were your *direct* (Parents, Husband/Wife, Children) relatives resident in CV? (IPRES3)

Yes☐1 No☐0

THE INTERVIEW CONTINUES ONLY IF THE SUBJECT IS MORE THAN 30 YEARS OF AGE AND ANSWERS YES TO AT LEAST ONE QUESTION IN EACH TIME PERIOD.
IF IT IS NOT THE CASE, DO NOT FORGET TO THANK THE SUBJECT!

RELAXING QUESTIONS

Instructions: You are in position to help us! Before asking some questions about your past, we would like to ask you general questions on your current general opinion about several public services.

1. How do you rate the general quality of the following public services?

	----------BAD----------				----------GOOD----------			
	Extremely bad	Very	Slightly	Neither good nor bad	Slightly	Very	Extremely good	NA
1.1. Health (HEA)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.2. Education (EDUC)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.3. Courts (TRIB)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.4. Police (POLI)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.5. Licensing Services (BURO)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.6. Fight Against Poverty Programs (POV)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.7. Customs (CUST)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.8. Migration Services/Passport Emission (PASS)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.9. Water and Electricity Company Electra (WAT)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.10. Post Office (POST)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1.11. Telecommunication Services CV Telecom (PHO)	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

2. "Good times were those when you were young". (OPTIM1)

	----------DISAGREE----------				----------AGREE----------			
	Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1

3. "The future of CV will be better than the present." (OPTIM2)

	----------DISAGREE----------				----------AGREE----------			
	Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

BASIC DEMOGRAPHY

Instructions: We are then going to ask you several questions regarding you and your past.

1. How many children have you had until today (including those who died after being born alive)? (CHILDN) _____
NA☐-1

2. What are the ages of your children this year? (*Begin with the oldest; if any already dead, tell us age in the year of death and year of death*)
FILL YOB WITHOUT ASKING
(CHILDA)

				3. Went to primary school 1-4? IF YES AND 5 OR LESS CHILDREN, FILL WITHOUT ASKING: (CHILDSC)			4. Went to secondary school 5+? (CHILDSE)		
					YOB+6:	YOB+10:			YOB+18:
1	_____	†:_____	YOB:_____	Yes☐1	No☐0	_____	_____	Yes☐1	No☐0	_____

FILL WITHOUT ASKING

	NUMBER BORN? CHILDREN	NUMBER IN PRIMARY SCHOOL? CHILDREN IN PRIMARY SCHOOL YOB+6/+10	NUMBER IN SECONDARY SCHOOL? CHILDREN IN SECONDARY SCHOOL YOB+10/+18
1985-1988	_____	_____	_____
1991-1997	_____	_____	_____
2000-today	_____	_____	_____

From here on, when in doubt between more than one answer, choose the option relative to the major part of the respective time period.

5. What has been your education level? (SCHOOL)

ASK FOR TODAY EDUCATION LEVEL AND DATE OF COMPLETION

EDUCATION

	1985-1988	1991-1997	2000-today
Without Education (does not know how to read or write).	☐1	☐1	☐1
Pre-Primary.	☐2	☐2	☐2
Primary (frequency).	☐3	☐3	☐3
Primary (complete).	☐4	☐4	☐4
To 6th Year.	☐5	☐5	☐5
Secondary (to 9th Year).	☐6	☐6	☐6
Pre-University (to 12th Year).	☐7	☐7	☐7
Technical.	☐8	☐8	☐8
University.	☐9	☐9	☐9
NA.	☐-1	☐-1	☐-1

6. What has been your occupation/work? (OCCUP)

OCCUPATION

	1985-1988	1991-1997	2000-today
Agriculture.	☐1	☐1	☐1
Industry.	☐2	☐2	☐2
Construction.	☐3	☐3	☐3
Commerce.	☐4	☐4	☐4
Transports.	☐5	☐5	☐5
Public Administration.	☐6	☐6	☐6
Education.	☐7	☐7	☐7
Health.	☐8	☐8	☐8
Other Services.	☐9	☐9	☐9
Housewife.	☐10	☐10	☐10
Unemployed.	☐11	☐11	☐11
Student.	☐12	☐12	☐12
Other.	☐13	☐13	☐13
NA.	☐-1	☐-1	☐-1
Description of Occupation:	_____	_____	_____

7. How do you describe your job experience? (JOB)

JOB

	1985-1988	1991-1997	2000-today
You had only one job the whole time.	☐1	☐1	☐1
You had several safe jobs.	☐2	☐2	☐2
You had many unsecured jobs/part-time.	☐3	☐3	☐3
You were unemployed almost the whole time.	☐4	☐4	☐4
You were retired.	☐5	☐5	☐5
You were studying.	☐6	☐6	☐6
NA.	☐-1	☐-1	☐-1

8. Have you or a member of your household attended the health care services (hospitals, health centers)? (ILL)

ILL

	1985-1988	1991-1997	2000-today
Yes.	☐1	☐1	☐1

No.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1
Specify (Relation with person ill/Illness):	_____	_____	_____

(Serious illnesses: Flu, "Paludismo" – initial form of Malaria, Malaria, Diarrhea, Typhoid, Hepatitis, Meningitis, Tuberculosis, AIDS…; Accidents; Deaf/Blind…)

PERCEIVED QUALITY OF PUBLIC SERVICES

Instructions: We are now going to ask you a set of questions concerning your opinion on the quality of public services in CV in the last 20 years. We start with health services.

A. PERCEPTION OF QUALITY OF PUBLIC HEALTH SERVICES

REMIND: OCCUPATION, CHILDREN, ILL

IF PUBLIC ADMINISTRATION AND/OR HEALTH AND/OR AT LEAST ONE CHILD AND/OR ILL:

1. IN THE CAPE-VERDEAN REALITY of public health services, what has been the need to:

1.1. Know someone who works there? (**HEA1**)

	----------**NOT NECESSARY**----------				----------**NECESSARY**----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1991-1994	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
PLACEBO 1994-1997	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

1.2. Offering bribes? (**HEA2**)

2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

Instructions: We are now going to ask some questions on education.

B. PERCEPTION OF THE QUALITY OF PUBLIC EDUCATION SERVICES

REMIND: EDUCATION, OCCUPATION, CHILDREN IN PRIMARY SCHOOL, CHILDREN IN SECONDARY SCHOOL

IF PUBLIC ADMINISTRATION AND/OR EDUCATION AND/OR AT LEAST ONE CHILD IN PRIMARY SCHOOL:

1. IN THE CAPE-VERDEAN REALITY, when passing annual exams in primary and secondary schools, what has been the need for:

1.1. The student to have quality/merit? (**QEDUC1**)

	----------**NOT NECESSARY**----------				----------**NECESSARY**----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
1991-1997	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
2000-today	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1

1.2. Offering bribes? (**QEDUC2**)

2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

IF PUBLIC ADMINISTRATION AND/OR EDUCATION AND/OR AT LEAST ONE CHILD IN SECONDARY SCHOOL:

2. IN THE CAPE-VERDEAN REALITY, when allocating scholarships for higher education abroad, what has been the need to:

Know someone important? (**SCH**)

	----------**NOT NECESSARY**----------				----------**NECESSARY**----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1991-1997	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

Instructions: We are now going to ask some questions on justice.

C. PERCEPTION OF THE QUALITY OF JUSTICE

1. Have you or a member of your household had contact with the courts of law (e.g.: as a witness, as the complainer or the subject of a process)? (COUREC)

	1985-1988	1991-1997	2000-today
Yes.	☐1	☐1	☐1
No.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1
Specify:	_____	_____	_____

IF PUBLIC ADMINISTRATION AND/OR ANY YES IN THE QUESTION ABOUT THE COURTS OF LAW:

2. IN THE CAPE-VERDEAN REALITY of the processes in the courts of law, what has been the need to:

2.1. Know someone important? (**TRIB1**)

	----------**NOT NECESSARY**----------				----------**NECESSARY**----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1991-1997	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

2.2. Offering bribes? (**TRIB2**)

2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

3. Have you or a member of your household had contact with the police (ex: were/was fined, complainer or subject of the complaint)? (POLREC)

	1985-1988	1991-1997	2000-today
Yes.	☐1	☐1	☐1
No.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1
Specify:	_____	_____	_____

IF PUBLIC ADMINISTRATION AND/OR ANY YES IN THE QUESTION ABOUT THE POLICE:

4. IN THE CAPE-VERDEAN REALITY of the treatment offered by the police, what has been the need to:

4.1. Knowing someone important? (**POLI1**)

	----------**NOT NECESSARY**----------				----------**NECESSARY**----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	1☐	2☐	3☐	4☐	5☐	6☐	7☐	-1☐
1991-1997	1☐	2☐	3☐	4☐	5☐	6☐	7☐	-1☐
2000-today	1☐	2☐	3☐	4☐	5☐	6☐	7☐	-1☐

4.2. Offering bribes? (**POLI2**)

2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

Instructions: We are now going to ask some questions on public services connected to the production of goods and services.

D. PERCEPTION OF THE QUALITY OF PUBLIC SERVICES CONNECTED TO THE STATE INTERVENTION IN THE ECONOMY

IF AGRICULTURE OR INDUSTRY OR CONSTRUCTION OR COMMERCE OR TRANSPORTS

1. Have you or your firm supplied or applied to supply your products or services to entities of the state? (SUPPLY)

	1985-1988	1991-1997	2000-today
Yes.	☐1	☐1	☐1
No.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1
Specify:	_____	_____	_____

2. Have you or your firm received or applied to receive any state subsidy? (SUBS)

	1985-1988	1991-1997	2000-today

	1985-1988	1991-1997	2000-today
Yes.	☐1	☐1	☐1
No.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1
Specify:	_____	_____	_____

IF ANY YES IN THE LAST TWO QUESTIONS

3. IN THE CAPE-VERDEAN REALITY, in the choice of state suppliers and/or subsidy recipients, what has been the need for:

3.1. The candidates to be competent? (**RECIP1**)

	----------**NOT NECESSARY**----------				----------**NECESSARY**----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
1991-1997	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
2000-today	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1

3.2. Offering bribes? (RECIP2)

2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

IF CONSTRUCTION

4. IN THE CAPE-VERDEAN REALITY, in the choice of public infrastructures construction in CV (roads, schools, health centers), what has been the importance given by politicians to the needs of the populations in general? (**INFRA**)

	----------**NOT IMPORTANT**----------				----------**IMPORTANT**----------			
	Not at all Important	Not a lot	Not much	More or less	Somewhat	Very	Extremely Important	NA
1985-1988	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
1991-1997	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
2000-today	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1

5. Have you or the firm where you worked obtained or tried to obtain from the state any type of license for the exercise of your professional activity? (LIC)

	1985-1988	1991-1997	2000-today
Yes.	☐1	☐1	☐1
No.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1
Specify:	_____	_____	_____

IF ANY YES

6. IN THE CAPE-VERDEAN REALITY of the public services of licensing and registration, what has been the need to:

6.1. Know someone who works there? (**BURO1**)

	----------**NOT NECESSARY**----------				----------**NECESSARY**----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1991-1997	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

6.2. Offering bribes? (BURO2)

2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

Instructions: We are now going to ask some questions on jobs in the state.

E. PERCEPTION OF JOBS IN THE STATE

REMIND: OCCUPATION, JOB

1. Have you or a member of your household tried to get a job in the state? (TRY)

	1985-1988	1991-1997	2000-today
Yes.	☐1	☐1	☐1
No.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1
Specify:	_____	_____	_____

IF ANY YES:

2. From the people who would like to have a job in the state, how many do you think have been accepted? (**COMPET**)

	----------FEW----------				----------MANY----------			
	Almost no one	Very few	Somewhat few	Some	Somewhat many	Surely many	Almost everyone	NA
1985-1988	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
1991-1997	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
2000-today	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1

3. IN THE CAPE-VERDEAN REALITY of allocation of jobs in the state, what has been the need to:

Know someone important? (**FAVOR2**)

	----------NOT NECESSARY----------				----------NECESSARY----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1991-1997	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

Instructions: We are now going to ask some questions about customs.

F. PERCEPTION OF THE QUALITY OF THE PUBLIC SERVICES OF CUSTOMS

1. Have you or a member of your household had any contact with the customs of CV? (CUSTREC)

	1985-1988	1991-1997	2000-today
Yes.	☐1	☐1	☐1
No.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1
Specify:	_____	_____	_____

IF PUBLIC ADMINISTRATION AND/OR ANY YES IN THE LAST QUESTION

2. IN THE CAPE-VERDEAN REALITY of functioning of the customs service, what has been the need to:

2.1. Know someone important? (**CUST1**)

	----------NOT NECESSARY----------				----------NECESSARY----------			
	Not at all Necessary	Not a lot	Not much	More or less	Somewhat	Very	Extremely Necessary	NA
1985-1988	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
1991-1997	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

2.2. Offering Bribes? (CUST2)

2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

Instructions: We are now going to ask some questions about the political system of CV.

G. PERCEPTION OF THE QUALITY OF THE POLITICAL SYSTEM

1. In the electoral campaigns, which parties have distributed gifts in your town (do not consider campaign material as posters, t-shirts, stickers,...)? (**CLT1**)

L1991/P1991 MpD☐1 PAICV☐2 AMM☐3 AP☐4 N☐0 NA☐-1

L1995/P1996 MpD☐1 PAICV☐2 PCD☐3 AMM☐4 N☐0 NA☐-1

L2001/P2001 PAICV☐1 MpD☐2 ADM☐3 PRD☐4 PSD☐5 PP☐6 CV☐7 JCF☐8 DHA☐9 N☐0 NA☐-1

(**MpD**, **PAICV**, **PCD**; **ADM**, **PRD**, **PSD**; **A**ntónio **M**ascarenhas **M**onteiro, **A**ristides **P**ereira, **P**edro **P**ires, **C**arlos **V**eiga, **J**orge **C**arlos **F**onseca, **D**avid **H**opper **A**lmada; **N**o One, **NA)**

2. IN THE CAPE-VERDEAN REALITY, for the voting decision, what has been the importance of:

2.1. Gifts/favors offered by politicians? (**CLT2**)

	----------NOT IMPORTANT----------				----------IMPORTANT----------			
	Not at all Important	Not a lot	Not much	More or less	Somewhat	Very	Extremely Important	NA
1991-1997	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1
2000-today	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

2.2. Electoral programs (promises in health, education, justice...). (**CLT3**)

1991-1997	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1
2000-today	☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1

3. Democracy made the politicians: (DEMO)

More concerned with the welfare of the population.	☐7
More willing to please the voters.	☐6
Slightly more responsible.	☐5
The same they were before.	☐4
Slightly less responsible.	☐3
More willing to please their friends.	☐2
More abusive of their power.	☐1
NA.	☐-1

Instructions: We are now going to ask some questions about you relative to the political system of CV.

POSITION RELATIVE TO THE POLITICAL SYSTEM

1. "As a common citizen of CV I believe I should have an important role towards controlling the behavior of the piblic officials of the country". (CITIZ1)

----------DISAGREE----------				----------AGREE----------			
Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

2. "I believe that the politicians should guide and the population follow". (CITIZ2)

----------DISAGREE----------				----------AGREE----------			
Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1

3. " As a common citizen of CV I believe I should require competence in the public services (health centers, schools, courts, police) that are aimed at my needs". (CITIZ3)

----------DISAGREE----------				----------AGREE----------			
Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

4. " I believe that the public officials who rule the public services (health centers, schools, courts, police) that are aimed at my needs know better what they should do than I know myself ". (CITIZ4)

----------DISAGREE----------				----------AGREE----------			
Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
☐7	☐6	☐5	☐4	☐3	☐2	☐1	☐-1

5. With respect to political activity, which of the following would better describe your case: (*Choose the best option only.*) (POLIT)

	1985-1988	*1991-1997*	*2000-today*
You were not connected with political activity.	☐0	☐0	☐0
You were a candidate.	☐1	☐1	☐1
You took part in national campaign(s).	☐2	☐2	☐2
You took part in local campaigns(s).	☐3	☐3	☐3
You took part in debates with friends.	☐4	☐4	☐4
Other:_____	☐-2	☐-2	☐-2
NA.	☐-1	☐-1	☐-1

6. Which political parties have you supported? WE REMIND ALL INFORMATION IS CONFIDENTIAL (PART)
(**PAICV**, **O**position, **MpD**, **PCD**; **ADM**, **PRD**, **PSD**, **A**bstention, **NA)**

1985-1988	PAICV☐1	O☐-3						A☐-2	NA☐-1
1991	MpD☐1	PAICV☐2						A☐-2	NA☐-1
1995	MpD☐1	PAICV☐2	PCD☐3	FDC☐4				A☐-2	NA☐-1
2001	MpD☐1	PAICV☐2	ADM☐3	PRD☐4	PSD☐5			A☐-2	NA☐-1

7. Which presidential candidates have you supported? WE REMIND ALL INFORMATION IS CONFIDENTIAL (PRESID)
(**A**ristides **P**ereira, **O**position, **A**ntónio **M**ascarenhas **M**onteiro, **P**edro **P**ires, **C**arlos **V**eiga, **J**orge **C**arlos **F**onseca, **D**avid **H**opper **A**lmada, **A**bstention, **NA)**

1985-1988	AP☐1	O☐-3			A☐-2	NA☐-1
1991	AMM☐1	AP☐2			A☐-2	NA☐-1

1996	AMM ☐ 1	O ☐ -3			A ☐ -2	NA ☐ -1
2001-1	PP ☐ 1	CV ☐ 2	JCF ☐ 3	DHA ☐ 4	A ☐ -2	NA ☐ -1
2001-2	PP ☐ 1	CV ☐ 2			A ☐ -2	NA ☐ -1

MIGRATION/SENSITIVE DEMOGRAPHY

Instructions: We are now going to ask some questions about your household and migration.

A HOUSEHOLD

Instructions: The household is composed by everyone who eats from the same pan (lives together in the same house), spouse of the subject of the interview (even if not living in the house), and all children of the subject of the interview and his(her) spouse (even if not living in the house).
We are now going to ask who the members of this household are. *Interviewer, write in this order: subject of the interview, spouse, all children (starting with oldest), all other people living in the same address.*

ID (HOUSEMEM)	1. Name? (NAMEMEM)	2. Does the member N. (HOUSEMEM), (NAMEMEM), live at the family address? (ADDRESSMEM)	3. What is the relation of the member N. (HOUSEMEM), (NAMEMEM), with the subject of the interview? (RELATIONMEM)	4. The member N. (HOUSEMEM), (NAMEMEM), is male or female? (SEXMEM)	5. Which is the age completed by the member N. (HOUSEMEM), (NAMEMEM) this year? (AGEMEM)	6. Which is the nationality of member N. (HOUSEMEM), (NAMEMEM)? (NATION)	7. Which is the religion of member n. (HOUSEMEM), (NAMEMEM)? (RELIG)	8. Which is the highest level of education completed by the parents of member N. (HOUSEMEM), (NAMEMEM)? (SCHOOLMEMPAR)	9. Where was member N. (HOUSEMEM), (NAMEMEM) born? (PLACEBIR)	10. Which is the marital status of the member N. (HOUSEMEM), (NAMEMEM)? (MARITMEM)	11. Which was the distance in time to the school at age 10 for the member N. (HOUSEMEM), (NAMEMEM)? (SCHOOLDIST)	12. Which is the highest level of education completed by the member N. (HOUSEMEM), (NAMEMEM)? (SCHOOLMEM)?	13. Which is the main occupation of the member N. (HOUSEMEM), (NAMEMEM)? (OCCUPMEM)	14. How do you classify the work experience of member N. (HOUSEMEM), (NAMEMEM)? (JOBMEM)	15. Which is the present net labor income of the member N. (HOUSEMEM), (NAMEMEM)? (INCMEMDIR)	16. Which is the other present net ordinary income (from land rental, capital profits, pensions and subsidies, remittances) of the member N. (HOUSEMEM), (NAMEMEM)? (INCMEMDIROTH)
	(If the subject does not want to say names, continue with the other questions, naming people by family relation and number in the questionnaire; the objective of the name is to ease the conversation only).	*1 Yes.* *0 No.* *-1 NA.*	*1 Same* *2 Spouse* *3 Child* *4 Stepchild* *5 Son/daughter-in-law* *6 Grandchild* *7 Parent* *8 Parent-in-law* *9 Brother/sister* *10 Grandparent* *11 Other relative* *12 Friend* *13 Other* *-1 NA.*	*1 Male* *0 Female* *-1 NA.*		*1 Cape Verde* *2 Portugal* *3 USA* *4 France* *5 Netherlands* *6 Luxemburg* *7 Italy* *8 Spain* *9 Switzerland* *10 Sao Tome and Principe* *11 Guinea Bissau* *12 Angola* *13 Mozambique* *14 Other* *-1 NA*	*1 Catholic* *2 Evangelic* *3 New Apostolic* *4 Adventist* *5 Mana* *6 IURD* *7 Pentecostal* *8 African Independent* *9 Jehovah's Witness* *10 Muslim* *11 Other* *12 Non-Religious* *-1 NA*	*1 Without education (does not know how to read or write)* *2 Pre-Primary* *3 Primary (frequency)* *4 Primary (complete)* *5 To 6th year* *6 Secondary (to 9th year)* *7 Pre-University* *8 Technical* *9 University* *-1 NA.*	*(Cape Verde County or Foreign Country)*	*(If single, insist with unmarried couple)* *1 Single* *2 Married* *3 Unmarried couple* *4 Divorced* *5 Separated* *6 Widow* *-1 NA.* *(If not single or NA) Which was the year when member n. (HOUSEMEM), (NAMEMEM), started being (MARITMEM)? (MARITMEMYEAR)*	*1 0-5m* *2 6-10m* *3 11-20m* *4 21-30m* *5 31m-1h* *6 1.01-1.5h* *7 1.51-2h* *8 +2h* *-1 NA.*	*1 Without education (does not know how to read or write)* *2 Pre-Primary* *3 Primary (frequency)* *4 Primary (complete)* *5 To 6th year* *6 Secondary (to 9th year)* *7 Pre-University* *8 Technical* *9 University* *-1 NA.*	*1 Agriculture* *2 Industry* *3 Construction* *4 Commerce* *5 Transports* *6 Public Administration* *7 Education* *8 Health* *9 Other Services* *10 Housewife* *11 Unemployed* *12 Student* *13 Other* *-1 NA.* *Description? (DESCOCCUPMEM)*	*1 Has one job only.* *2 Has several safe jobs.* *3 Has many unsecured jobs/part-time.* *4 He(she) is unemployed.* *5 He(she) is retired.* *6 He(she) is studying.* *7 NA.*	*This amount is per:(1Hour/2Day/3Month/4Year/-1NA) (INCMEMREF)* *This amount is in the currency: (1ECV/2EUR/3USD/4Other/-1NA) (INCMEMREFCUR)* *This income is between... (only if no direct response) ECV day/month:* *1 0-50/0-1500* *2 51-100/1501-3000* *3 101-150/3001-4500* *4 151-200/4501-6000* *5 201-500/6001-15000* *6 501-1000/15001-30000* *7 1001-2000/30001-60000* *8 2001-4000/60001-120000* *9 +4000/+120000* *-1 NA (INCMEMIND)*	*This amount is per:(1Hour/2Day/3Month/4Year/-1NA) (INCMEMREFOTH)* *This amount is in the currency: (1ECV/2EUR/3USD/4Other/-1NA) (INCMEMREFCUROTH)* *This income is between... (only if no direct response) ECV day/month:* *1 0-50/0-1500* *2 51-100/1501-3000* *3 101-150/3001-4500* *4 151-200/4501-6000* *5 201-500/6001-15000* *6 501-1000/15001-30000* *7 1001-2000/30001-60000* *8 2001-4000/60001-120000* *9 +4000/+120000* *-1 NA (INCMEMINDOTH)*
H1												JUMP	JUMP	JUMP		
H2(Chil						JUMP	JUMP	JUMP								

d)																
H3						JUMP	JUMP	JUMP								

12. What is the expenditure of your household? (EXPDIR) _____ NA☐-1

IF VALUE

This amount is per: (EXPREF)

Day☐1 Month☐2 NA☐-1

This amount is in the currency: (EXPREFCUR)

ECV☐1 EUR☐2 USD☐3 Other☐4 NA☐-1

Specify: _____

IF NA

This income is between... ECV day/month (EXPIND):

(day: **0-50 escudos**; **51-100**; **101-150**; **151-200**; **201-500**; **501-1000**; **1000-2000**; **2000+**; **ND**)

(month: **0-1500 escudos**; **1501-3000**; **3001-4500**; **4501-6000**; **6001-15000**; **15001-30000**; **30000-60000**; **60000+**; **NA**)

1 0-50☐0-1500 2 51-100☐1501-3000 3 101-150☐3001-4500 4 151-200☐4501-6000 5 201-500☐6001-15000 6 501-1000☐15001-30000 7 1000-2000☐30000-60000 8 2000+☐60000+ -1 NA☐-1

13. Have you or a member of your household applied to receive or received any loans from financial institutions? (LOA)

	1985-1988	1991-1997	2000-today
No.	☐1	☐1	☐1
APPLIED but did not receive.	☐2	☐2	☐2
Applied and RECEIVED.	☐3	☐3	☐3
NA.	☐-1	☐-1	☐-1

14. Has your household been the owner of…? (PROP)

	1985-1988	1991-1997	2000-today
Land.	☐1	☐1	☐1
House(s).	☐2	☐2	☐2
Car(s).	☐3	☐3	☐3
Animals (cows, goats, chickens, pigs,…).	☐4	☐4	☐4
Gas/electrical owen.			☐5
Microwave owen.			☐6
Fridge.			☐7
Freezer.			☐8
Washing machine.			☐9
Telephone.			☐10
TV.			☐11
Radio.			☐12
Sound System.			☐13
PC (without internet access).			☐14
PC (with internet access).			☐15
Cell phone.			☐16
Bicycle.			☐17
Motorized Bicycle.			☐18
Motorcycle.			☐19
Other:_____	☐-2	☐-2	☐-2
None.	☐0	☐0	☐0
NA.	☐-1	☐-1	☐-1

B. MIGRATION SPELLS IN THE HOUSEHOLD

1. Has anyone belonging to your household ever moved to a different location (different county within Cape Verde or different foreign country)? (HOUSEMIG)

Yes.☐1 No.☐0 NA.☐-1

IF YES

2. Has anyone, who has migrated from your household, returned at any time? (HOUSEMIGRET)

Yes.☐1 No.☐0 NA.☐-1

IF YES

Instructions: We are now going to ask about those who have returned from migration in your household (TABLE B1).

TABLE B1 – RETURN MIGRATION

3. Name? (NAMERETMEM)	4. When has the person (NAMERETMEM) migrated?	5. To where did the person (NAMERETMEM) migrate? (RETMEMDEST)	6. For which purpose did the person (NAMERETMEM) migrate? (RETMEMMOT)	7. Did the person (NAMERETMEM) have the intention of coming back? (RETMEMINT)	8. Which was the level of education attended by the person (NAMERETMEM) when migrant? (SCHOOLRETMEM)	9. Which was the main occupation of the person (NAMERETMEM) when migrant? (OCCUPRETMEM)	10. How to you classify the work experience of the person (NAMERETMEM) when migrant? (JOBRETMEM)	11. Which was the net labor income of the person (NAMERETMEM) when migrant? (INCRETMEMDIR)	12. How much income did the person (NAMERETMEM) send home per month when migrant? (REMRETMEMDIR)	13. Which was the main occupation of the person (NAMERETMEM) just before migrating? (OCCUPRETMEMPRE)	14. How do you classify the work experience of the person (NAMERETMEM) just before migrating? (JOBRETMEMPRE)	15. Which was the net labor income of the person (NAMERETMEM) just before migrating? (INCRETMEMPREDIR)	16. Which were the total saving of the person (NAMERETMEM) in the end of this migration spell? (SAVRETMEM)	17. How did the person (NAMERETMEM) use his/her savings? (3 uses by order, begin with most important) (USESAVRETMEM)

(or number used in the description of the members of the household)	*(begin with most recent; if more than one migration spell for the same person, wait for next entry and repeat the person)* *Year of Departure (RETMEMDEPDATE)* *Year of Arrival (RETMEMDEPDATE)*	*(Cape Verde County or Foreign Country)* *(If Foreign Country) Take the level of citizenship in this destination country. Which is the importance for you of an approximation in CV to this level of citizenship? (CITIZRET)*	*1 Work* *2 Studies* *3 Birth in the Family* *4 Death in the Family* *5 Change in Marital Status* *6 Family reunion* *7 Other* *-1 NA.*	*1 Yes* *2 No* *-1 NA.*	*1 None* *2 Pre-Primary* *3 Primary (frequency)* *4 Primary (complete)* *5 To 6th year* *6 Secondary (to 9th year)* *7 Pre-University* *8 Technical* *9 University* *-1 NA.*	*1 Agriculture* *2 Industry* *3 Construction* *4 Commerce* *5 Transports* *6 Public Administration* *7 Education* *8 Health* *9 Other Services* *10 Housewife* *11 Unemployed* *12 Student* *13 Other* *-1 NA.* *Description? (DESCOCCUPRETMEM)*	*1 Had one job only all the time.* *2 Had several safe jobs.* *3 Had many unsecured jobs/part-time.* *4 He(she) was unemployed almost all the time.* *5 He(she) was retired.* *6 He(she) was studying.* *7 NA.*	*This amount was per:(1Hour/2Day/3Month/4Year/-1NA) (INCRETMEMREF)* *This amount was in the currency: (1ECV/2EUR/3USD/4Other/-1NA) (INCRETMEMREFCUR)* *This income is between... (only if no direct response) ECV day/month:* *1 0-50/0-1500* *2 51-100/1501-3000* *3 101-150/3001-4500* *4 151-200/4501-6000* *5 201-500/6001-15000* *6 501-1000/15001-30000* *7 1001-2000/30001-60000* *8 2001-4000/60001-120000* *9 +4000/+120000* *-1 NA (INCRETMEMIND)*	*This amount was in the currency: (1ECV/2EUR/3USD/4Other/-1NA) (REMRETMEMREFCUR)* *This income is between... (only if no direct response) ECV/month:* *1 0-1500* *2 1501-3000* *3 3001-4500* *4 4501-6000* *5 6001-15000* *6 15001-30000* *7 30001-60000* *8 60001-120000* *9 +4000/+120000* *-1 NA (REMRETMEMIND)*	*1 Agriculture* *2 Industry* *3 Construction* *4 Commerce* *5 Transports* *6 Public Administration* *7 Education* *8 Health* *9 Other Services* *10 Housewife* *11 Unemployed* *12 Student* *13 Other* *-1 NA.* *Description? (DESCOCCUPRETMEMPRE)*	*1 Had one job only.* *2 Had several safe jobs.* *3 Had many unsecured jobs/part-time.* *4 He(she) was unemployed almost all the time.* *5 He(she) was retired.* *6 He(she) was studying.* *7 NA.*	*This amount was per:(1Hour/2Day/3Month/4Year/-1NA) (INCRETMEMPREREF)* *This amount was in the currency: (1ECV/2EUR/3USD/4Other/-1NA) (INCRETMEMPREREFCUR)* *This income is between... (only if no direct response) ECV day/month:* *1 0-50/0-1500* *2 51-100/1501-3000* *3 101-150/3001-4500* *4 151-200/4501-6000* *5 201-500/6001-15000* *6 501-1000/15001-30000* *7 1001-2000/30001-60000* *8 2001-4000/60001-120000* *9 +4000/+120000* *-1 NA (INCRETMEMPREIND)*	*(include not only non-spent amount sent to the household, but also the amount brought at the final return)* *This amount was in the currency: (1ECV/2EUR/3USD/4Other/-1NA) (SAVRETMEMREFCUR)*	***1 Food and maintenance*** *2 Schooling* *3 Health* *4 Construct, repair, or buy house* *5 Other consumption* *6 Investment in farming (e.g.: purchase of land, livestock,...) – Specify* *7 Start/expand business in Industry – Specify* *8 Start/expand business in Services (e.g.: commerce, tourism) – Specify* *9 Debt repayment* *10 Saving* *11 Other* *-1 NA*
H1															

IF YES IN FIRST QUESTION OF SECTION B

16. Is anyone belonging to your household currently away? (HOUSEMIGPRE)

Yes.☐1 No.☐0 NA.☐-1

IF YES

Instructions: We are now going to ask about who is currently away from the household (TABLE B2).

TABLE B2 – CURRENT MIGRANTS

17. Name? (NAMEPRESMEM)	18. When has the person (NAMEPRESMEM) migrated?	19. To where did the person (NAMEPRESMEM) migrate? (PRESMEMDEST)	20. For which purpose did the person (NAMEPRESMEM) migrate? (PRESMEMMOT)	21. Did the person (NAMEPRESMEM) have the intention of coming back? (PRESMEMINT)	22. Which was the level of education attended by the person (NAMEPRESMEM) when migrant? (SCHOOLPRESMEM)	23. Which was the main occupation of the person (NAMEPRESMEM) when migrant? (OCCUPPRESMEM)	24. How to you classify the work experience of the person (NAMEPRESMEM) when migrant? (JOBPRESMEM)	25. Which was the net labor income of the person (NAMEPRESMEM) when migrant? (INCPRESMEMDIR)	26. Which was the main occupation of the person (NAMEPRESMEM) just before migrating? (OCCUPPRESMEMPRE)	27. How do you classify the work experience of the person (NAMEPRESMEM) just before migrating? (JOBPRESMEMPRE)	28. Which was the labor net income of the person (NAMEPRESMEM) just before migrating? (INCPRESMEMPREDIR)

(or number used in the description of the members of the household)	*(begin with most recent; if more than one migration spell for the same person, wait for next entry and repeat the person)* *Year of Departure (PRESMEMDEPDATE)*	*(Cape Verde County or Foreign Country)* *(If Foreign Country) Take the level of citizenship in this destination country. Which is the importance for you of an approximation in CV to this level of citizenship? (CITIZPRES)*	*1 Work* *2 Studies* *3 Birth in the Family* *4 Death in the Family* *5 Change in Marital Status* *6 Family reunion* *7 Other* *-1 NA.*	*1 Yes* *2 No* *-1 NA.*	*1 None* *2 Pre-Primary* *3 Primary (frequency)* *4 Primary (complete)* *5 To 6th year* *6 Secondary (to 9th year)* *7 Pre-University* *8 Technical* *9 University* *-1 NA.*	*1 Agriculture* *2 Industry* *3 Construction* *4 Commerce* *5 Transports* *6 Public Administration* *7 Education* *8 Health* *9 Other Services* *10 Housewife* *11 Unemployed* *12 Student* *13 Other* *-1 NA.* *Description? (DESCOCCUPPRESMEM)*	*1 Had one job only all the time.* *2 Had several safe jobs.* *3 Had many unsecured jobs/part-time.* *4 He(she) was unemployed almost all the time.* *5 He(she) was retired.* *6 He(she) was studying.* *7 NA.*	*This amount was per:(1Hour/2Day/3Month/4Year/-1NA) (INCPRESMEMREF)* *This amount was in the currency: (1ECV/2EUR/3USD/4Other/-1NA) (INCPRESMEMREFCUR)* *This income is between... (only if no direct response) ECV day/month:* *1 0-50/0-1500* *2 51-100/1501-3000* *3 101-150/3001-4500* *4 151-200/4501-6000* *5 201-500/6001-15000* *6 501-1000/15001-30000* *7 1001-2000/30001-60000* *8 2001-4000/60001-120000* *9 +4000/+120000* *-1 NA (INCPRESMEMIND)*	*1 Agriculture* *2 Industry* *3 Construction* *4 Commerce* *5 Transports* *6 Public Administration* *7 Education* *8 Health* *9 Other Services* *10 Housewife* *11 Unemployed* *12 Student* *13 Other* *-1 NA.* *Description? (DESCOCCUPPRESMEMPRE)*	*1 Had one job only.* *2 Had several safe jobs.* *3 Had many unsecured jobs/part-time.* *4 He(she) was unemployed almost all the time.* *5 He(she) was retired.* *6 He(she) was studying.* *7 NA.*	*This amount was per:(1Hour/2Day/3Month/4Year/-1NA) (INCPRESMEMPREREF)* *This amount was in the currency: (1ECV/2EUR/3USD/4Other/-1NA) (INCPRESMEMPREREFCUR)* *This income is between... (only if no direct response) ECV day/month:* *1 0-50/0-1500* *2 51-100/1501-3000* *3 101-150/3001-4500* *4 151-200/4501-6000* *5 201-500/6001-15000* *6 501-1000/15001-30000* *7 1001-2000/30001-60000* *8 2001-4000/60001-120000* *9 +4000/+120000* *-1 NA (INCPRESMEMPREIND)*
H1											

C. MIGRANT REMITTANCES

1. During the past 12 months, has anyone living in your household received money or goods from people currently not living in this household? (ex: family members, friends, neighbors,... who have already returned or are currently abroad, pensions) (HOUSEMIGREM)

Yes.☐1 No.☐0 NA.☐-1

IF YES

Instructions: We are now going to ask about those who have sent remittances in the last 12 months to some member of this household. We begin with senders who are family members (if that happens).

ID of the sender (HOUSEREM)	2. Name? (NAMEREM)	3. To which member of the household did the sender N. (HOUSEREM), (NAMEREM), send money or goods? (REMDESTMEM)	4. Which is the relation between the sender N. (HOUSEREM), (NAMEREM), and the member of the household who has received the money or goods, (REMDESTMEM)? (RELATIONREM)	5. Where does the sender N. (HOUSEREM), (NAMEREM), currently live? (REMADDRESS)	17. The sender N. (HOUSEREM), (NAMEREM), is male or female? (SEXREM)	18. Which is the age completed by the the sender N. (HOUSEREM), (NAMEREM), this year? (AGEREM)	19. Which is the marital status of the sender N. (HOUSEREM), (NAMEREM)? (MARITREM)	20. Which is the highest level of education completed by the sender N. (HOUSEREM), (NAMEREM)? (SCHOOLREM)?	6. How has sender N. (HOUSEREM), (NAMEREM), transferred the money or goods? (REMCHAN)	7. Compared to the income of the household, what was the importance of this money or goods received from sender N. (HOUSEREM), (NAMEREM)? (REMRELEV)	8. How much money was received from the sender N. (HOUSEREM), (NAMEREM) in the last 12 months (including the value of any goods received)? (REMAMOUNT)	9. How did member of the household (REMDESTMEM) use this money or goods? (3 uses by order, begin with most important) (USEREM)	10. Is any or part of this money to be repaid in the future to the sender N. (HOUSEREM), (NAMEREM)? (REMDEVOL)
	(in the case of members of the household, insert name or number used in the description of the members of the household; in the case of other sending person insert name or number starting at 101)	*(insert name or number in the household)*	*1 Same* *2 Spouse* *3 Child* *4 Stepchild* *5 Son/daughter-in-law* *6 Grandchild* *7 Parent* *8 Parent-in-law* *9 Brother/sister* *10 Grandparent* *11 Other relative* *12 Friend* *13 Other* *-1 NA.*	*(Cape Verde County or Foreign Country)*	*1 Male* *0 Female* *-1 NA.*		*(If single, insist with unmarried couple)* *1 Single* *2 Married* *3 Unmarried couple* *4 Divorced* *5 Separated* *6 Widow* *-1 NA.*	*1 Without education (does not know how to read or write)* *2 Pre-Primary* *3 Primary (frequency)* *4 Primary (complete)* *5 To 6th year* *6 Secondary (to 9th year)* *7 Pre-University* *8 Technical* *9 University* *-1 NA.*	*1 Banking transfer* *2 Western Union* *3 Post* *4 In person (sender)* *5 In person (other)* *6 Other* *-1 NA.*	*1 Not at all important* *2 Not a lot important* *3 Not much important* *4 More or less* *5 Somewhat important* *6 Very important* *7 Extremely important* *-1 NA.* *(asked in two steps as in 7-poin scale questions above)*	*(in thousands of ECV))*	***1 Food and maintenance*** *2 Schooling* *3 Health* *4 Construct, repair, or buy house* *5 Other consumption* *6 Investment in farming (e.g.: purchase of land, livestock,...) – Specify* *7 Start/expand business in Industry – Specify* *8 Start/expand business in Services (e.g.: commerce, tourism) – Specify* *9 Debt repayment* *10 Saving* *11 Other* *-1 NA*	*1 Yes.* *0 No.* *-1 NA.*

H1		H1			JUMP	JUMP	JUMP	JUMP					
R1		H1											
P1		H1	JUMP	JUMP	JUMP	JUMP	JUMP	JUMP					

D. NEW BUSINESSES

1. Has any member of your household ever used savings money to start/expand businesses? (HOUSEMEMBUS)

Yes.☐1 No.☐0 NA.☐-1

IF YES

Instructions: We are now going to ask about which businesses benefited (as a start or expansion) from savings in your household.

ID of the business (HOUSEBUS)	2. Name of the business N. (HOUSEBUS)? (NAMEBUS)	3. When was business N. (HOUSEBUS), (NAMEBUS), started or expanded with the help of migrant remittances/savings? (BUSDATE)	4. Who was the member of the household who was in charge of the start/expansion of business N. (HOUSEBUS), (NAMEBUS),? (BUSNAMEMEM)	5. How many people were employed as result of the start/expansion of business N. (HOUSEBUS), (NAMEBUS)? (BUSEMP)	6. How much money was invested in the place for the business N. (HOUSEBUS), (NAMEBUS), when it was started/expanded? (ex: land, building,...) (BUSINV)	7. How much money was invested in machinery and equipment when business N. (HOUSEBUS), (NAMEBUS) was started/expanded? (BUSINVEQUIP)	8. Which fraction of this investment (last 2 questions) in the business N. (HOUSEBUS), (NAMEBUS), was financed by migrant remittances/savings? (BUSPERINVREM)	9. Which fraction of this investment (last 2 questions) in the business N. (HOUSEBUS), (NAMEBUS), was financed by debt? (BUSPERCINVDEBT)
		(if more than one start/expansion, repeat the business ahead)	*(name or number in the household)*		*(use thousands of ECV))*	*(use thousands of ECV))*	*1 0-10%* *2 11-20%* *3 21-30%* *4 31-40%* *5 41-50%* *6 51-60%* *7 61-70%* *8 71-80%* *9 81-90%* *10 91-100%* *-1 NA.*	*0 0%* *1 0-10%* *2 11-20%* *3 21-30%* *4 31-40%* *5 41-50%* *6 51-60%* *7 61-70%* *8 71-80%* *9 81-90%* *10 91-100%* *-1 NA.*
B1			H1					

ACCOUNTABILITY EXPERIMENT

Instructions: Regarding the post and us...

1. "When I put a letter in the mail here in CV directed at someone in CV, I am sure it will get to its destination". (POSTTRUST)

----------DISAGREE----------				----------AGREE----------			
Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

2. Which is the time distance from your house to the closest post mail-box? (POSTDIST)

0-5m☐1 6-10m☐2 11-20m☐3 21-30m☐4 31m-1h☐5 1.01-1.5h☐6 1.51-2h☐7 +2h☐8 NA☐-1

3. If I want to put a letter in the mail... (POSTWAY)

I go to the post mail-box on purpose.	☐1
I give it to the mailman.	☐2
I give it to a family member to put it in the mail.	☐3
I give it to a friend to put it in the mail.	☐4
I give it to a taxi driver to put it in the mail.	☐5
I wait for when I walk close to the post mail-box.	☐6
I do not use the post.	☐7
NA.	☐-1

4. "For me it is easy to put a letter in the mail". (POSTEASE)

----------DISAGREE----------				----------AGREE----------			
Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

5. "I am used to send letters by mail". (POSTUSE)

----------DISAGREE----------				----------AGREE----------			
Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

6. "The University of Oxford at the United Kingdom, which is conducting this study, is trustworthy". (OXTRUST)

----------DISAGREE----------				----------AGREE----------			
Disagree Totally	Strongly	Slightly	Neither agree nor disagree	Slightly	Strongly	Agree Totally	NA
☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

Instructions:
The intervention of the common citizen in discussion of the path of the country, control of the public services, and monitoring of the public officials is extremely valuable for the good governance of CV. An active role regarding awareness about public services quality at the local level (health centers, schools, courts, police) should belong to that intervention.
This study is asking in detail (as you have seen) 1000 citizens/families all over the country about how the public services are being offered. You may have a role in spreading awareness about the results of this study, namely through the media of the country (television RTC, newspapers A Semana, Expresso das Ilhas, Horizonte, radio stations Nacional, Comercial, Nova).
For that you only have to send us this stamped postcard (INTERVIEWER: DELIVER POSTCARD TO THE SUBJECT AND WRITE ITS NUMBER). If we receive more than 50% of the postcards in the next month, we will make public the results of the study in the media referred above. If we do not receive enough postcards we will not make public the results of this study in the media of CV. For that reason it is very important that you put the postcard in the mail if you want that Cape-Verdeans are able to require higher quality in the public services of CV.

7. Delivered postcard number? _____

8. Will you send us this postcard?

Yes.☐1 No.☐0 Perhaps.☐2 NA.☐-1

RELIABILITY OF RESPONSES

Instructions: A last question…

1. How comfortable have you felt during the interview? (RELY1)

----------NOT COMFORTABLE---------				----------COMFORTABLE----------			
Not at all Comfortable	Not a lot	Not much	More or less	Somewhat	Very	Extremely Comfortable	NA
☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐-1

(*TO BE COMPLETED BY THE INTERVIEWER*)

2. THE SUBJECT OF THE INTERVIEW UNDERSTOOD THE QUESTIONNAIRE AND COMMUNICATED EASILY. (RELY2)

DISAGREE TOTALLY	STRONGLY	SLIGHTLY	NEITHER AGREE NOR DISAGREE	SLIGHTLY	STRONGLY	AGREE TOTALLY
☐1	☐2	☐3	☐4	☐5	☐6	☐7

NAME AND CONTACT

Would you like to provide us with your name and contact? (This is uniquely for a possible future contact for a continuation of this study.)

YES, I agree to provide my name and contact.
Name: _____
Contact: _____

(*TO BE COMPLETED BY THE INTERVIEWER*)
#: _____
ENDING TIME: _____
GPS: _____

INSTRUCTIONS FOR THE INTERVIEWER:
PLEASE THANK THE SUBJECT OF THE INTERVIEW!