Income Inequality in La Réunion 1960-2014:
Long-Run Trends and International Comparison[*]

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Abstract

This paper studies the evolution of income inequality, more specifically the shares of income accruing to the richest in La Réunion, covering the period 1960 to 2014, using income tax data. The results reveal that La Réunion has experienced a strikingly high level of inequality, especially in 1960. It has witnessed a rapidly declining trend in its top income shares since the mid-1980s to the 2000s. The top 1% shares went down from around 30% in 1960 to 15% of total income in the mid-1980s and further down to 10% from 2004 onwards. Similarly, the top 10% share decreased from around 60% in 1986 to around 40% in the recent decades. I explore the possible consequences that high civil servants' wages combined with high private sector income accruing to a small elite on one hand, and low wages for the rest of the population on the other, have had on the level of inequality throughout the period. These results are put in an international perspective by conducting a thorough comparative study with Mauritius and other socially divided countries. La Réunion has had a consistently higher level of inequality compared to France and Mauritius but is comparable to the top income shares observed in South Africa and Algeria for some periods. I also explore the potential driver of high inequality in a post-colonial setting which is the presence of an elite existing since colonial times.

JEL Classification: D63, H20, N30
Keywords: Inequality, Top incomes, La Réunion, France, Mauritius, Taxation

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1. Introduction

1.1 Literature Review

The study of the distribution of top income has attracted much attention in the realm of economics. There has been a marked revival of interest in this topic in the recent decades, with the work of Piketty (2001, 2003) which uses tax data to estimate the long-run distribution of top incomes in France. This research strategy to analyse income inequality is not entirely contemporary and its origins can, in fact, be traced back to the pioneering work of Kuznets (1953), later adopted by Atkinson and Harrison (1978). The growing current concern over the rising income inequality in the world has given rise to a wave of country-level studies spanning across five continents covering a long period of time. Most of the literature finds a U-shaped experience of the trend in the top percentile shares, with a decline in the post-war decades followed by increases in recent decades. With a coordinated approach, Atkinson and Piketty (2007, 2010) put together a collected series of the works on top incomes from a global perspective. This collaborative research process has culminated into the consolidation of an ambitious project of a comprehensive online database, The World Wealth & Income Database (WID)[3], in 2011. All these work have made use of income tax tabulations and national accounts and applied similar methodology, namely Pareto Interpolation.

The WID series has been rapidly expanding to cover both developed and developing countries despite obstacles posed by the paucity of data in the latter case. This has constrained most of the research to observe only the evolution of top incomes in those countries. As of now, the database includes over thirty countries and there is a continued effort to achieve an extensive time and geographical coverage with an attempt to include inequality series at the sub-national level[4]. In fact, while there has been extensive work on the evolution of income inequality at the national level in France, little research has focused on the regional levels and far fewer studies have been conducted on the overseas departments of France. It is in this line that the present paper examines the top incomes in La Réunion, an overseas department of France. This being said, despite being a departmental-level analysis, the study of top incomes in La Réunion is no less than analysing another country altogether, given its geographical and cultural difference from metropolitan France.

The interest in examining the trends in inequality in this specific department of France draws on various motivations. Firstly, it complements the literature on inequality in former colonies. Atkinson (2014) studies the distribution of top incomes in former British colonies in Africa and identifies different factors that led to the current evolution of inequality, namely the presence of a colonial elite and the power of the

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ruling class, the evolution of the colonial income concentration, and the legacy at the time of independence. Similarly, there have been studies on the evolution of income inequality in colonial societies namely French Algeria, Cameroon, Indochina and Tunisia and more recently, British India (Alvaredo et al., 2016, 2017[5]). While this paper does not directly observe the income concentration in La Réunion before its departmentalisation, it nevertheless adopts a qualitative approach to shed light on the link between the colonial legacy and the ensuing levels of inequality.

This analysis is driven by the upsurge over the disparities between mainland France and its overseas departments. This growing concern stems from the dismal situation of the poorer section of the population in those regions and the stark levels of inequality compared to mainland France, as put forward by the French National statistical institution, *Institut National de la Statistique et des Etudes Economiques* (INSEE) study (Jonzo, 2009). In fact, based on the Gini Index[6] in 2011, La Réunion notoriously ranks first (0,53) as the most unequal department of France, overtaking Paris (0,50), the most unequal department in the mainland, followed by Martinique (0,47) compared to an index of 0,31 in metropolitan France (Maurin and Bernier, 2013). Not only are the overseas department plagued by high levels of inequality but their levels of poverty are also sought to be higher than the mainland. This alarming situation naturally calls for in-depth analysis of the trends in inequality in those regions. Only recently, a nationwide strike amid mounting protests over crime, economic difficulty and the poor quality of social services, has erupted in French Guiana. France recognises the plights of these far-flung territories. In fact, the recent implementation of action plans such as the enactment of the bill on "real equality for overseas department"[7] and "Mayotte 2025" are signs of acknowledgement of the elephant in the room.

Given these peculiarities, La Réunion is undeniably an interesting case study in itself. Nevertheless, this paper goes further by drawing a comparison in the trends in income inequality with the neighbouring island, Mauritius. Given their historical similarities, or lack thereof, it is interesting to observe the contrast in top incomes trends between what is often referred to as *les îles sœur*[8]. A thorough comparison between Mauritius and Reunion Island will require an extensive consideration of the differences in their respective colonial history. In fact, earlier research has emphasized the role of colonial, political and economic institutions in the determination of subsequent economic performance (Acemoglu et al., 2012). Additionally, Angeles (2007) argues that "colonial history is a major explanatory factor behind today's large differences in inequality", finding that the percentage of European settlers is associated with significantly higher

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[5] Alvaredo, Bergeron and Cassan (2017)- Income concentration in British India

[6] Varies between 0 (highly equal) and 1 (highly unequal)

[7] Loi n° 2017-256 passed on the 28th February 2017 on "Egalité réelle des outre-mers"

[8] Translated as "sister islands"

values of today's Gini coefficient.

Pertaining to the colonial history of Reunion island, Stanziani (2013) has worked on the impact of colonial rule on servants, wage earners and indentured migrants. There has been a scant literature on the comparative studies of Mauritius and La Réunion focusing on different aspects, most notably on the differences in labour rights and immigration between the two islands in the 19th century (Stanziani, 2012) and the comparative growth performance based on the differences in development pathways (Dimou, 2004). Similarly, Rivière (1999) has analysed the differences in the industrial competitiveness between Mauritius and Reunion Island, highlighting the difference in infrastructure and human capital endowments between the two. Given the sparse literature on such studies, the contribution of this paper is to provide a comparative study between both islands from an income distribution and inequality perspective. It looks at the evolution of inequality in the post-independence era for Mauritius and the post-departmentalisation French experience in La Réunion.

1.2   My contribution

The contribution of this research is to estimate the top income shares and analyse the trends in income inequality in La Réunion since the 1960s, as well as put it in comparison with both France and Mauritius. While the first is a natural comparison between an overseas department and its mainland, the second represents a comparative study of inequality between two neighbouring islands with very interesting characteristics. It aims at providing an understanding of the economic mechanisms and processes which led to the evolution of income inequality we observe in the data. This study investigates the claim that overseas departments of France, in this case La Réunion, have constantly experienced a much higher level of inequality than metropolitan France. The use of tax data at the department level from the archives have to the best of my knowledge never been exploited. Hence, this work will add to the literature on top income in areas with a colonial history. Moreover, while most studies on inequality in France looks at metropolitan France, not many have addressed this particular question for the French overseas departments, precisely where income inequality is presumed to be higher, for the paucity of data and difficulty in accessing them. Finally, it provides an interpretation of the trends in top income shares in Mauritius established in the literature and adds to the almost non-existing economic literature on comparative analyses between Mauritius and La Réunion with respect to inequality.

The rest of the paper is organised as follows: Section II gives an overview of the economic situation and the historical context of La Réunion. Section III presents the data, its sources, the methodology employed and provides the ground for using fiscal data. Section IV reports and interprets the results for the top income shares in La

Réunion with respect to France. Section V puts these results in an international perspective. It gives an introduction of the economy and the history of Mauritius and provides a comparative study between La Réunion and Mauritius, as well as other socially-divided countries. Section VI establishes the interest of future research and we conclude in Section VII.

2. Overview

2.1 Economic Situation

Located at about 800 km east of Madagascar, La Réunion is the wealthiest island in the Indian Ocean followed by Seychelles and Mauritius. It is unsurprisingly so as La Réunion is attached to and economically dependent on France. As seen in Figure 2.1, La Réunion has witnessed a steady increase in its GDP per capita since the mid-1950s.

Figure 2.1: GDP per capita in La Réunion
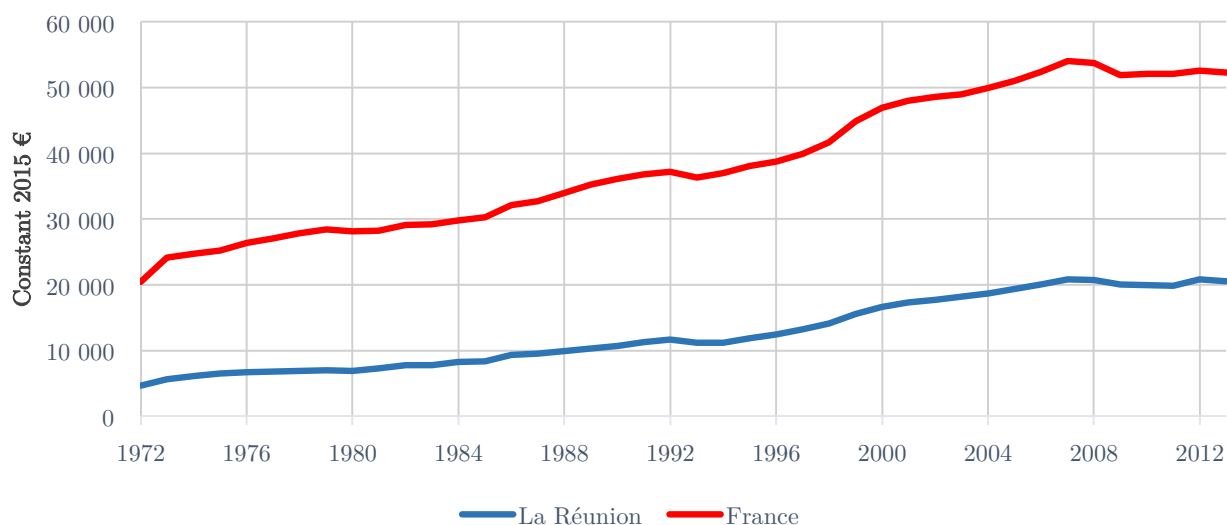
Source: National Accounts (INSEE)

In the recent years, there has been a general consensus that La Réunion's economic growth has considerably dampened, experiencing a definite slowdown after the 2008 crisis as seen in Figure 2.2. In the face of the global financial crisis of 2008, La Réunion's economy was hit, both directly through a slowdown in its own exports and tourism sector and indirectly, through the impact of the crisis on the French economy. Thereafter, this territory has witnessed a very moderate recovery, but has faced difficulties to go back to pre-crisis levels of growth.

The economy of La Réunion has for long relied on sugar cane production and exportation and hence been sensitive to shocks in the international sugar prices. In 2011, 57% of its cultivable land was under sugar cane plantation, remaining one of the main pillars of the economy (Réunion, 2011). A second driving force of the economy is the Construction and Public Work Sector (BTP)[9]. In fact, the rapid growth in the

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[9] Known as the *Bâtiments et Travaux Publics* (BTP)

years prior to 2007 had been mostly driven by investments especially in BTP, alleviating the pressure for jobs. However, as from 2007, this sector has known various challenges. The completion of major works as well as the delay and cancellation of various public work projects have had a negative impact on growth, estimated to account for at least 2% of GDP in 2009. La Réunion has thus had a relatively short-lived and unsustainable period of growth. The current ambitious project of the construction of a coastal road on the island might boost the economy for the coming years but its impact remains to be seen. Given the gloomy picture post-crisis, the other promising sectors includes fishing, aqua-culture, agro-nutrition among others.

Figure 2.2: Real growth rate of GDP per capita in La Réunion and France
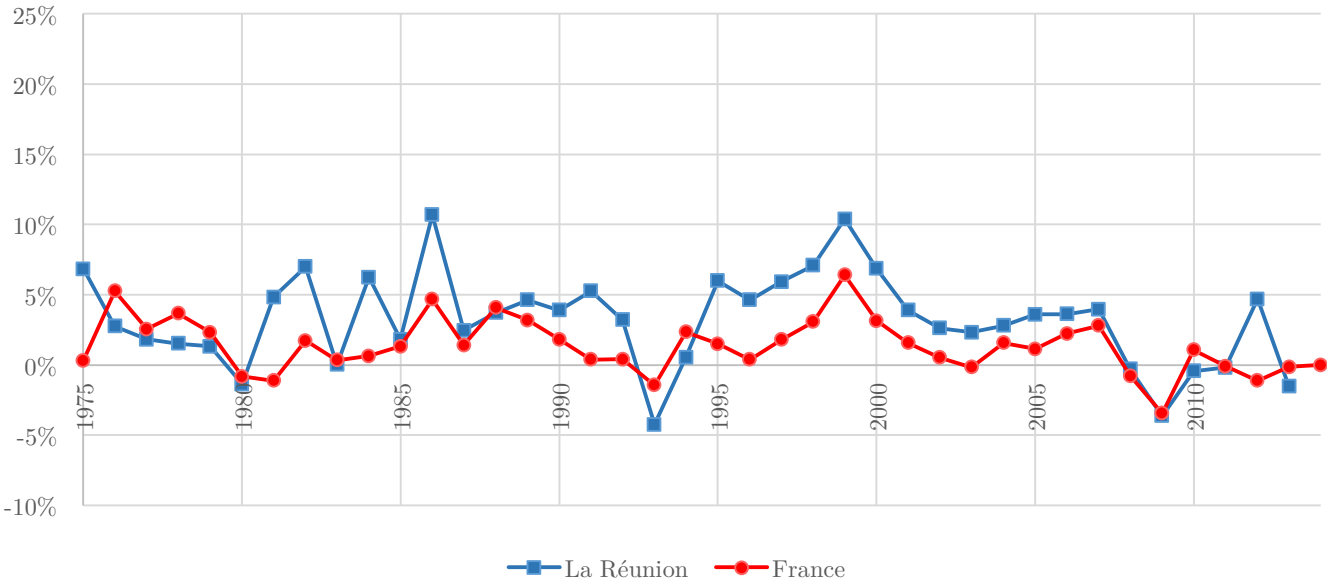
Source: French National Accounts (INSEE)

The economy of La Réunion, similar to other overseas departments of France, has been crippled by high levels of unemployment (at 24.6% in 2015), especially among young adults (at 52.4% in the same year). The island is also characterised by higher levels of part-time employment and twice the rate of underemployment as metropolitan France. Additionally, the high cost of living in La Réunion only adds up to the burden of households. A study by Fagnot & Paillole (2016) has estimated the price level in La Réunion at 7,1% higher than that in Metropolitan France. A high unemployment rate combined with high costs of living inevitably leads to high levels of poverty. In spite of the fact that the income per capita of La Réunion represents around 80% of that of the metropolitan France, the level of poverty in La Réunion had reached 42% in 2010

(compared to 14% in mainland). This alarming disparity comes from the underlying level of inequality that exists in La Réunion, implying that a large section of the population does not benefit from this income.

In addition, despite being part of the same country, La Réunion and France have different dynamics at play. There is even a remarkable difference between La Réunion and other overseas departments. While the French Antilles have completed their demographic transition in a much shorter span of time than mainland France, La Réunion is currently still in its phase of transition with low death rates but high birth rates and correspondingly high fertility rate. Figure 2.3 shows the rapid increase in the population of La Réunion as a proportion of the total French population over the last 60 years. This proportion has more than doubled in 60 years, from around 0,6% in 1950 to 1,3% in 2014.

The distinct demographic structure of this far-flung territory owe to the migration flows it has witnessed throughout its history. Having no native population, La Réunion has been populated by the flux of people, both inflows and outflows, mostly driven by the inadequacy or the excess of labour at different points in time. This has resulted in a complex melting pot in terms of the composition of the population, as well as a dynamic demographic profile. Recent works have predicted a major pattern of rapid ageing of the population in La Réunion and other DOMs in the coming decades (Marie and Rallu, 2012).

The common ageing pattern with mainland France does not, however, share the same underlying drivers. In fact, in the overseas departments, this trend emerges from interesting DOM-specific aspects. Firstly, in the face of the high unemployment rate, especially for young adults, many are driven to move to the mainland for their education and jobs and return later in their lives. In addition to this and perhaps to a much lesser extent, La Réunion is also seen as a coveted retirement destination, be it by metropolitan French or by "native migrants"[10] who chose to return to their land much later in their lives (Marie and Rallu, 2004). This pendulum migration has led to a void in the middle of the age pyramid structure (between 20- 29 years old) in La Réunion, Martinique and Guadeloupe (See Appendix E)[11].

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[10] The term refers to people born in La Réunion who move out of the territory

[11] Refer to Breton et al., 2009 for a description of the phenomenon

Figure 2.3: Population of La Réunion as a proportion of Total France Population
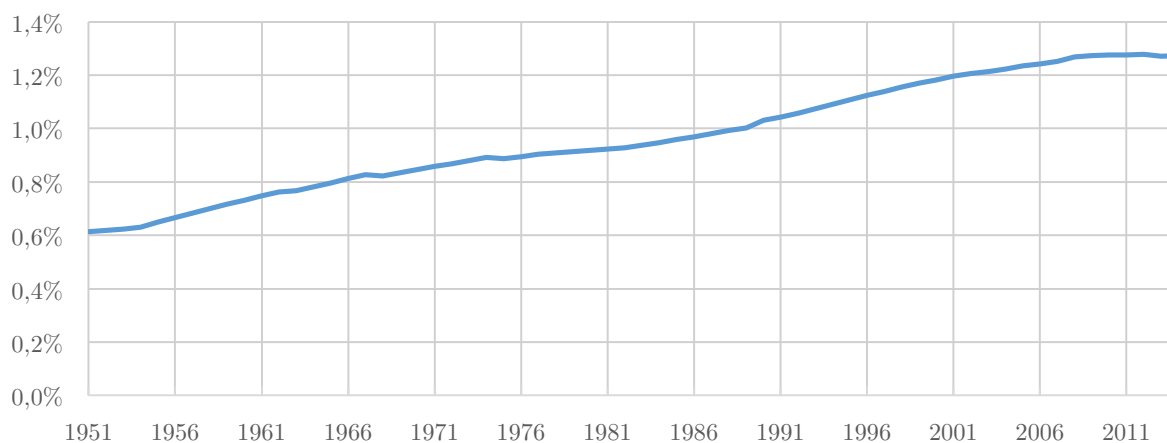
Additionally, the size of the household has traditionally been larger than that of metropolitan France, even though it has been decreasing over the years, going from 4.2 persons in 1982 to 2.7 persons per household in 2012, compared to 2.2 persons in metropolitan France. This is a logical outcome of the high fertility rate in La Réunion. This is especially the case with a fertility rate of 0.7 children per woman between the ages of 15 and 24 in contrast to 0.3 in metropolitan France in 2015. The decrease in the size of the household can be attributed to the decline in the proportion of extended families over the years as people tend to assimilate the way of life of metropolitan France.

Similarly, La Réunion demarcates itself from France, in terms of the demographic structure of its tax units. The latter refers to the fiscal household which is the unit of observation in the tax data. It refers to each single person or each married couple[12] filling a tax form as one unit. Hence, by construction, the number of tax unit need not be equal to the number of household owing to factors such as cohabitation. The different demographic mechanisms at play can be disentangled by separately looking at the number of adult per tax units and the number of tax units per household.

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[12] Including PACS partners

Figure 2.4a: Number of adults per tax unit
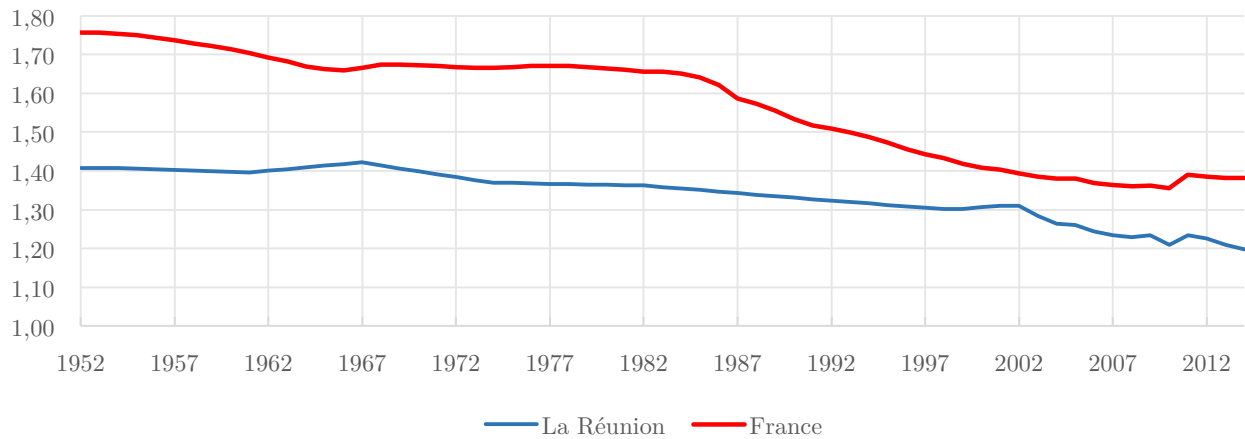
Figure 2.4b: Number of tax units per household
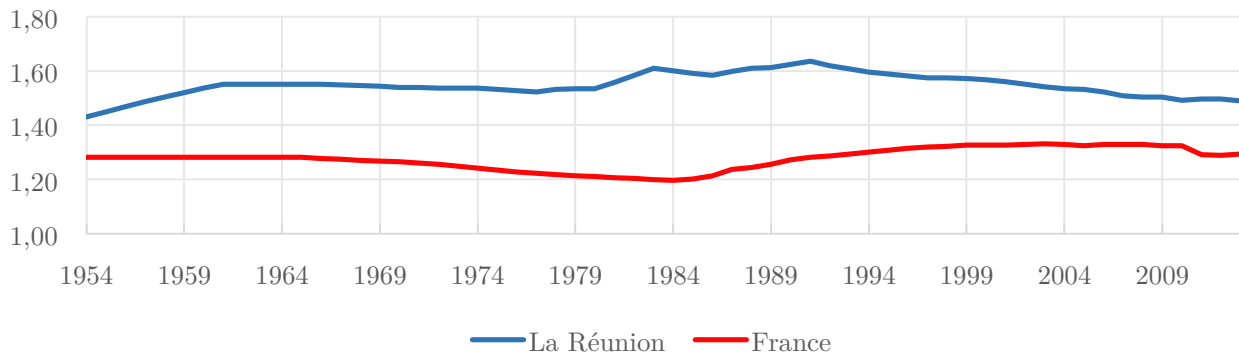
Source: Own estimations based on INSEE data

The number of adults per tax units is mostly affected by the number of married couples and single people. Figure 2.4a suggests that La Réunion has had a consistently lower number of adults per tax units than France since the 1950s, though this gap seems to narrow down in the recent years. The general downward trend can be associated to the lower marriage rate of 3.3% in La Réunion (compared to 3,5% in metropolitan France) and the higher incidence of 20% of single-parent households in La Réunion.

From Figure 2.4b it can be observed that the number of tax units per household is higher in La Réunion than in France, with an upward trend until the 1990s, thereafter declining. This later trend might be closely linked to the decline in intergenerational cohabitation and to the rapidly changing family structure (Ajir, 2015). In fact, only 25% of those above 60 years of age live with their children compared to 50% in 1982. Similarly, the proportion of single-parent households have increased by 5 percentage points between 1982 to 2012 in La Réunion.

2.2   Historical Context

2.2.1   History

La Réunion along with neighbouring islands, until then completely inhabited island, were formally discovered at the beginning of the 16th century by a Portuguese expedition. This group was led by Dom Pedro Mascarenhas, to whom the group of islands still owe their name- the Mascarenes Archipelagos. In those years, La Réunion was known as a popular stopover on the commercial routes of the Indian Ocean, but remained unoccupied well until the mid-17th century. Initially named Ile Bourbon, it fully became a French colony in 1665 with the first settlers sent by the French East India Company. The latter directly governed the island for a century until 1767, bringing slaves mostly from East Africa and Madagascar in a view to boost the production and export of spices and coffee. However, being prone to natural disasters, La Réunion's coffee plantations established under the French East India Company did not fare well and the ensuing bankruptcy of the latter led the island to be governed directly by the French.

Figure 2.5: Historical Timeline of La Réunion
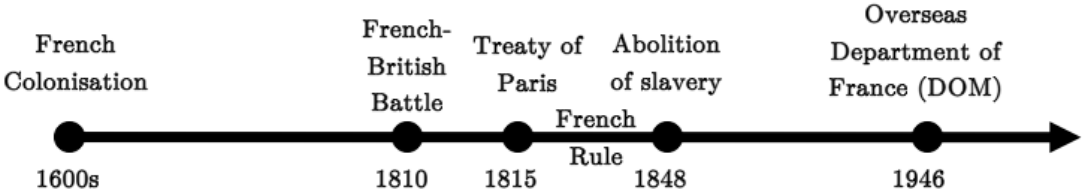
For the most part of its colonial history, apart from a brief British domination from 1810 to 1815, La Réunion remained under the French rule and was named Ile de La Réunion in 1848. With the abolition of slavery in 1794, effectively implemented much later, on the 20th December 1848, slave compensations were paid to erstwhile slave-owners. Moreover, with the continued need for cheap labour, the French administration imported indentured labourers from Africa, India and China under labour contracts. However, in reality, they were subject to almost the same conditions as the ex-slaves. This massive migration gave the multi-ethnic and multi-cultural aspect that still prevails till today. The abolition of slavery provided a chance for the ex-slaves to flee the plantation areas and take refuge in different parts of the island, mostly inland, alongside the non-sugar barons poor whites (*Petits Blancs*).

On the economic front, La Réunion's economy was affected by the opening of the Suez Canal in 1869 which greatly diminished its importance on the trade routes, leading to

a mediocre level of economic. Given the diversity of the landscape that can be found in La Réunion, from the mountains and volcanoes to the shores, only around a third of its land has been cultivable. This disadvantage has had a continued impact on its economy. The island had to turn to alternatives to sustain its economy and thus engaged in sugar cane cultivation. Numerous sugar mills were built on the largest sugar estates, in effect leading to a mono-crop economy in La Réunion. The sugar industry played a central role in the island, largely contributing to the economic development of the island, not only in terms of export but also employment.

Well into the mid-20th century, the economy was still controlled by the small plantocracy. As illustrated in the chapter "From French slaves to French citizens: The African Diaspora in Reunion Island", the 20th century in La Réunion had been marked by a deep social class divide despite nurturing a sense of nationalism. On one side there were the poor people and on the other, a few but economically powerful elite known as the *Grand Blancs* (Hintjens, 2003). A direct challenge to this domination came in the form of a shift away from the existing colonial society to being an extended territory of France. Given the segregation between this economic elite vis-à-vis the mix of African and Asian descendants, a majority of the latter group supported a pro-integration-to-France ideology driven by the idea of an end to the elite domination in the economic and political sphere and to benefit from equal legal and other social and labour rights as their metropolitan counterparts. However, the downside of departmentalisation was mainly in terms of the existing obligations which the French fiscal system entailed. More specifically, the imposition of the income tax in La Réunion has been a widely contested topic in view of the departmentalisation.

As a result, La Réunion, along with other ex-colonies, namely Guadeloupe, Martinique and Guiana was granted the status of overseas department in 1946. As opposed to being a turning point in its history, the situation which prevailed thereafter in La Réunion improved at a much slower pace than expected. This has triggered various confrontations between the two opposing forces- pro-French[13] and pro-independence[14] groups in the 1980s, leading to the creation of the Regional and General Council to facilitate the gradual decentralisation of power to a local level. Hence, contrary to similar socially-divided regions, La Réunion's divide hindered the emergence of independence rather than favouring it (Boyer, 1978).

After gaining full French identity, however, the task in terms of the construction of the society to be at par with metropolitan France has proven to be a challenging one,

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[13] Mostly comprised of the lower sections of the population with a hope for a reversal of economic power from the existing elite.

[14] French descendents who would benefit from the inexistence of a higher power governing the island.

be it on economic, political or cultural grounds. With the marginalisation of Creole as a legitimate language, European-level decisions and high unemployment, it was only a matter of time to witness a social tension. In fact, the outbreak of 1991 riots were clearly signs of dissatisfaction and frustration from the marginalised segment of the population, with the common slogan of "Equality with French People" (Hintjens, 1995). The next section presents an overview of the different phases of the socio-economic policies put in place in La Réunion after its departmentalisation.

2.2.2   Socio-economic policy evolution

Despite moving away from the colonial status in 1946, it is not until the 1970s that the issue of La Réunion's economic development was truly put on the table. It experienced an average annual real growth of 6% for over two decades. Thereafter, real growth rate has been stable at around 4% until the 2008 crisis. These periods have been crucial for the socio-economic development of the island owing to the gradual catching up process with the mainland. Characterised as a "silent revolution", the rapid growth during the end of the 20th century has led to massive improvements on various grounds, ranging from sanitary, social, economic, demographic to cultural aspects (Drozin, 2001). Highly debated in the 20th century, the extension of the French social benefits is still today a matter of disagreement. The need for an alignment of the social system with metropolitan France arose not only as a legitimate right for the overseas departments, but also to avoid any social explosions.

Starting modestly in the 1950s, the first phase of the transition in La Réunion consisted in addressing the urgent sanitary and social situation, in contrast to the challenges of demographic deficit faced by metropolitan France at the same time. For almost two decades, the policies comprised of basic medical, familial and child supports, the creation of the *Caisse Générale de Sécurité Sociale*, basic labour rights such as insurance covering workplace risks among others, at lower levels than those prevailing in metropolitan France. Given the prevailing level of poverty, a large section of the population was dependent on the social system. This situation also led to the formal training of social workers to provide social services. Together with these, a large-scale effort in terms of social programmes are put in place to tackle the pressing sanitary conditions in La Réunion. This period has also seen the consolidation of the controversial project of the BUMIDOM leading to the mass emigration of young people to metropolitan France as an answer to the widespread unemployment but long criticized as being a form of exploitation of the less well-off. With the demographic explosion, there was also a need to provide for social housing and other measures to keep the rents affordable.

The second phase begun as from the mid-1960s onwards with the establishment of tailor-made social policies to the specificities of the overseas departments, alongside the creation of various associations. This led to the setting up of the *Fonds d'Action Sanitaire et Sociale Obligatoire* (FASSO) which mainly focused on education, health and fighting malnutrition in La Réunion. During this period, additional effort was put in improving the existing policies, with an ongoing emphasis on hygiene and sanitation. It was only in 1972, that the *Caisses d'Allocations Familiales* (CAF) was established in La Réunion. These efforts led to a 26-fold increase in the average real income between 1950 and 1970 (Coder et al., 2016). However, despite these efforts, La Réunion was still plagued by high levels of unemployment due to high levels of illiteracy and low levels of job creation. Owing to the lack of qualified people, metropolitan civil servants had to be incentivised to move and work in La Réunion. Moreover, the social benefits put in place were very restrictive and faced major challenges due to the high birth rates and rapidly growing population.

The third phase starting in the early 1980s, marked the intensified effort to bring equality in La Réunion. In 1982, the central government transferred power to the level of the regions and departments, fully effective as from 1985, in a bid to decentralise the administration of the country. This led to the restructuring of the social system in view of the major challenges faced by the Regional Council of La Réunion. Several social benefits such as the family allocations and the minimum old-age pension were extended to a greater proportion of the population alongside the implementation of other departmental-level programmes. This period was marked by the process of alignment of benefits to the same level as metropolitan France- the *Revenu Minimum d'Insertion* (RMI) in 1989, followed by the unemployment insurance in 1991, family allocations in 1993, the alignment of the minimum wage in 1996, previously at a lower level than metropolitan France and the facility of "Youth Employment" in 1997 among others (Drozin, 2001). The completion of the process of alignment of social benefits with metropolitan France was achieved in the early 2000. With the decentralisation and the outbreak of social tensions, there were a greater awareness about the situation prevailing in the island at the beginning of the 21st century.

2.2.3   La Réunion Income and Taxation Specificities

Given the colonial history of the island and the striking difference with metropolitan France on various grounds, La Réunion has been subject to the taxation and implemented the social benefits at different timings and on different terms than in the mainland. First, while a general income tax was enacted in France in 1914, its implementation in La Réunion was a widely debated topic as can be understood from the various passages of sessions at the *Conseil Générale* (See Appendix F). It is not

until the 1940s that an income tax was imposed in La Réunion. Moreover, in order to account for the relatively higher cost of living and their specific situations in the far-off territories, concessions on the income tax paid in the overseas department were made.[15] The abatement stood at 30% currently capped at 5100€ in La Réunion, Guadeloupe and Martinique, and at 40% capped at 6700€ in Guiana. In addition, their VAT rates imposed are at lower rates (typically at 8,5%) compared to metropolitan France (20%) and non-existent in Guiana and Mayotte. The overseas departments are also allowed to collect dock dues locally and in fact, the latter constitutes a very important part of the fiscal revenues and allows the overseas departments to protect their local markets.

Moreover, La Réunion has various specificities in terms of income earned. Put in place in the 1950s, civil servants employed in overseas departments are paid a surplus on their salary. This over-payment known as the "prime de vie chère" or "sur-rénumération" refers to the multiplying factor to the salary, enjoyed by public servants in DOMs. While it is set at 40% in Guadeloupe, Martinique and Guiana, it has reached a shocking 53.6% in La Réunion. These payments were initially put in place to attract metropolitan civil servants to work in these far-off lands in face of a lack in the supply of qualified native population. Later extended to local civil servants, it was justified on the ground of the high cost of living. In addition, in the 1950s, metropolitans were also compensated for their tedious trip to the distant overseas and for "homesickness". This took the form of a premium for remoteness and setting up in the new environment. This was accompanied by other benefits such as supplementary paid leaves which still persist today, certainly with stricter conditions attached.

 In the same line, there is the "over-pension" which is a premium paid on retired civil servants' pensions ranging from 35%, capped at 10 000 € in La Réunion. Discarded by many as an unnecessary burden on the government's budget, it might also encourage richer metropolitan people to invest in properties in La Réunion where they can spend some months of the year and hence, benefit from a pension premium at retirement. In addition to these, La Réunion and other overseas departments also benefit from a reduced cost of social contribution since 1994, further consolidated in 2000[16], to reduce the cost of employment in order to tackle the problem of unemployment. The minimum amount of this benefit varies from 1.3 to 1.5 times the minimum wage depending on the sector of employment. According to the report of Senator Luart in 2003 on the

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[15] In line with Article 299 (2) of the Treaty establishing European Community which takes into account "…the structural social and economic situation of the French overseas departments, the Azores, Madeira and the Canary Islands, which is compounded by their remoteness, insularity, small size, difficult topography and climate, economic dependence on a few products…".

[16] Loi n° 2000-1207 (LOOM) of 13th of December 2000- Guidance for overseas departments

draft bill for overseas departments, these exemptions which concerns around 128 000 wage earners and 28 000 enterprises has cost the government 399.3m €.

The benefits accruing to public servants in La Réunion has been subject to numerous debates. Judged to be costly and unfair, the "over-pension" is due to gradually fade out until 2028. However, proposals to reform the "over-payment", on the other hand, face fierce opposition from the concerned beneficiaries. This system can hardly be defended for it might be contributing to the very problem it attempts to tackle- high cost of living. It has, thus, developed into a perverse system of continued assistance by the government and led to a disincentive to create jobs in the private sector. Moreover, it mostly benefits a small segment of the population who are employed in public services and creates a discrepancy between them and the rest of the population. Its role in widening the gap between the well-off and the poor has been one of the causes of persistent social tensions.

3 Data and Methodology

3.1 Data

In order to establish the long-term evolution of income inequality in La Réunion, I will estimate the top income distribution, using income tax data published annually by the tax administration coupled with national accounts and demographic data. The main data used to construct this series is the tabulated income tax data which consists of the total number of tax filers and the total income per brackets (see Table A2 in Appendix for an example), spanning over the period of 1960 to 2014 intermittently, with some missing years from the series. Starting from the most recent series to the old ones, the data between 2000 and 2014 is obtained from the *Direction Générale des Finances Publiques*[17] (DGFiP). For the preceding years, namely the year 1960 and the period from 1986 to 1998[18], the tabulated income tax is obtained from the archives of the *Centre des Archives Economiques et Financières* (CAEF)[19]. These tables were available from the fifty-pages long pamphlets known as the *Etats 1921,* which was mainly published for internal use within the Ministry of Finance. These data do not violate any statistical confidentiality rule as it includes a large number of taxpayers[20]. For the period 1951-1985 and 1988, we retrieve partial tax data from INSEE publications, under *L'Economie de La Réunion, Panorama* (1980-1991), thereafter called *Tableau Economique de La Réunion* (TER). Unfortunately, the latter are not as detailed as the previously-mentioned series as it was used for expository purposes only, to give an overview of the economy. Since these tabulations report only the number of taxable taxpayers per income brackets, we can only obtain a rough estimate of the top shares and chose not to present them in this paper.

Before 1999, the income tax data for the year n normally corresponded to the income of the same year. This changed as from 2000; the income tax data for year n is based on the income of year n-1. This mechanically led to an artificial gap in the publication in income tax data in the year 1999, since the income tax data of the year 1998 corresponds to the income of the same year while the income tax data of 2000 refers to the income of the preceding year, 1999. Moreover, since 1987 the tax administration publishes income tax data based on income perceived in year n in both the following year 31/12/(n+1) and the year after 31/12/(n+2). The latter is in principle the most up-to-date data which takes into account tax audits and tax reliefs that occur in the year after the imposition. We have thus used the latest tabulations available in all years except 1960 (see Appendix A). As of now, the latest publication available is that

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[17] As of today, data for 2004-2014 can be retrieved online from www.impots.gouv.fr

[18] except for 1988

[19] CAEF- Savigny-Le-Temple

[20] It respects the rule that no results for a group of less than 11 persons can be disseminated

of 2015 tax tabulations which as explained above, correspond to 2014 incomes[21]. The comparability of the publications across time is generally consistent, except for changes in income definition used over the years. The only noticeable change in these compiled data has been in terms of changes in the number of thresholds, normally to provide more detail at the upper end as taxpayers reports increasingly higher taxable income over the years.

As explained in Section 2, the unit of analysis reported in the tabulation tax data refers to the tax unit which is a concept similar to the household but is not exactly the same. The latter is preferred in economic surveys such as the household budget surveys, as it allows to take intra-household economies of scale into account. In the case of taxation, the data is presented for tax units which refers to a group of person that fills in a unique tax form. There may thus be more than one tax unit in a household. In France, married or PACSed[22] couples can fill a single tax form. Hence, for instance, a cohabitating unmarried couple would constitute one household but two tax units. Due to the breaks in the series owing to changes in tax laws, we attempt to create a homogenous series by making various corrections (See Appendix). Apart from tax data, this analysis also relies on demographic and income data as will be detailed in Section 3.2.2 and 3.2.3.

3.2   Methodology

Piketty (2001) has established a thorough study of top incomes at the national level in France in his book on *Les Hauts Revenus en France au 20e siècle: Inégalités et Redistribution, 1901-1998.* Using fiscal sources, he finds that top income shares in France rose until World War I, followed by a fall thereafter and then starts to rise again to its initial level as from the 1970s. Landais (2008) extends the work of Piketty to cover more recent years, finding an upward trend of top income shares. These works have made use of exhaustive tax tabulations published by the tax administration to construct the income distribution of the top incomes. Garbinti et al., (2017) provides a complete and updated series on France based on these papers. The methodology adopted in this paper will closely follow that of Piketty and Garbinti et al., to reproduce an analogous series for La Réunion.

3.2.1   Generalised Pareto Interpolation

Since the data is in the form of tabulations and the given thresholds do not generally coincide with the percentile of the population that is of interest (for instance the top 1%, top 0.1%...), there is a need to apply an interpolation technique to obtain the

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[21] Tax data for the year 2016 (based on 2015 income) is expected to be available in July 2017

[22] A civil solidarity pact- a contractual form of civil union

shares of top incomes. As lengthily explained in Atkinson et al. (2011) and confirmed in the literature on top incomes, the top tail of the income distribution is usually well approximated by a Pareto distribution (power law). Hence, the traditional Pareto interpolation method, introduced by Pareto (1986), has been widely used in the literature on top income. These research have assumed that the distribution of income follow a Pareto distribution. The Pareto law has the following cumulative distribution function F(y):

$$1 - F(y) = \left(\frac{k}{y}\right)^{\alpha}$$

where k>0, α>1. The corresponding density function f(y) is given by:

$$f(y) = \frac{\alpha k^{\alpha}}{y^{(1+\alpha)}}$$

This distribution has the property that the ratio of average income y*(y) of individuals with income above a given threshold y is always proportional to y:

$$y * (y) = E(z| z \geq y) = \frac{\int_{z>y} z f(z) dz}{\int_{z>y} f(z) dz} = \frac{\int_{z>y} \frac{dz}{z^{\alpha}}}{\int_{z>y} \frac{dz}{z^{(1+\alpha)}}} = \frac{\alpha}{\alpha - 1} y$$

From the above equation, it can be concluded that the ratio $y * \frac{(y)}{y}$ does not depend on the income threshold y:

$$y * \frac{(y)}{y} = \frac{\alpha}{\alpha - 1}$$

This is referred to as the Inverted Pareto coefficient, β[23]. This coefficient gives a sense of the shape of the distribution, whereby a higher β corresponds to a fatter upper tail of the distribution. This is equivalent to a higher top income shares and hence, more income inequality. For instance, a β of 2 would imply that the average income above 100 000 € would be 200 000 € and similarly with a β of 2.5, the average income above 1 million € would be 2.5 million €. The β coefficient normally varies between 1.5 and 3 as seen in the cases analysed in the WID, whereby coefficients around 1.5 - 1.8 indicating low inequality in general (for which top 1 % income shares are between 5 to 10%). Conversely, coefficients equal to or above 2.5 are normally associated to very high inequality (for which top 1% income shares are around 15 - 20 %) (Atkinson et

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[23] And conversely, $\alpha = \frac{\beta}{\beta - 1}$ which is inversely related to inequality.

al., 2011). Evidences from the WID suggest that the Pareto coefficient varies across countries and over time. Moreover, the inverted Pareto coefficient, β, is not constant throughout the income distribution for a given country in a particular year and has an increasing trend, more so at the upper end of the distribution.

While this is a reasonable approximation, the traditional method cannot be used to interpolate the entire distribution. Hence, recent research have used the generalised Pareto interpolation technique which is a non-parametric interpolation method based on the transformation of the full Pareto curve. Comparison of the estimates using this method with the estimates obtained from exhaustive micro-files have shown that the full distribution can be precisely and smoothly estimated using the generalised Pareto interpolation method. This allows for more flexibility as in contrast to the traditional Pareto laws, β does not need to be constant and the distribution need not take any specific shape (Blanchet et al., 2017). Hence, this paper estimates the evolution of the full distribution of income using the generalised Pareto interpolation method applied to tabulated tax data, combined with population and income data. The purpose of the last two is to constitute a control total for the full population (denominator of the top shares).

There are different ways to present income inequality; using different concepts of income namely fiscal income (including or excluding capital gains), pre-tax factor income or pre-tax national income. The unit of observations may also vary from tax units, equal-split adults or individual adults. All these different measures present different aspects of income inequality. As is done in Piketty (2001, 2003), we will focus on fiscal income among tax units and their estimation is explained in the following section.

3.2.2   Control Total for Population

In estimating the top incomes shares, there is a need to obtain an external control for the entire population which refers to the total number of tax filers. The latter represents the total number of tax units which would have been observed had everyone been required to fill in a tax form. With changes in the tax system, a greater proportion of tax units is captured in the tax data in the most recent years and less so for prior years. A summary of the evolution of the adult population, the number of taxable tax units and the total number of tax units reported in the tax data is presented below:

Figure 3.1: Evolution of the Adult Population and Tax Units
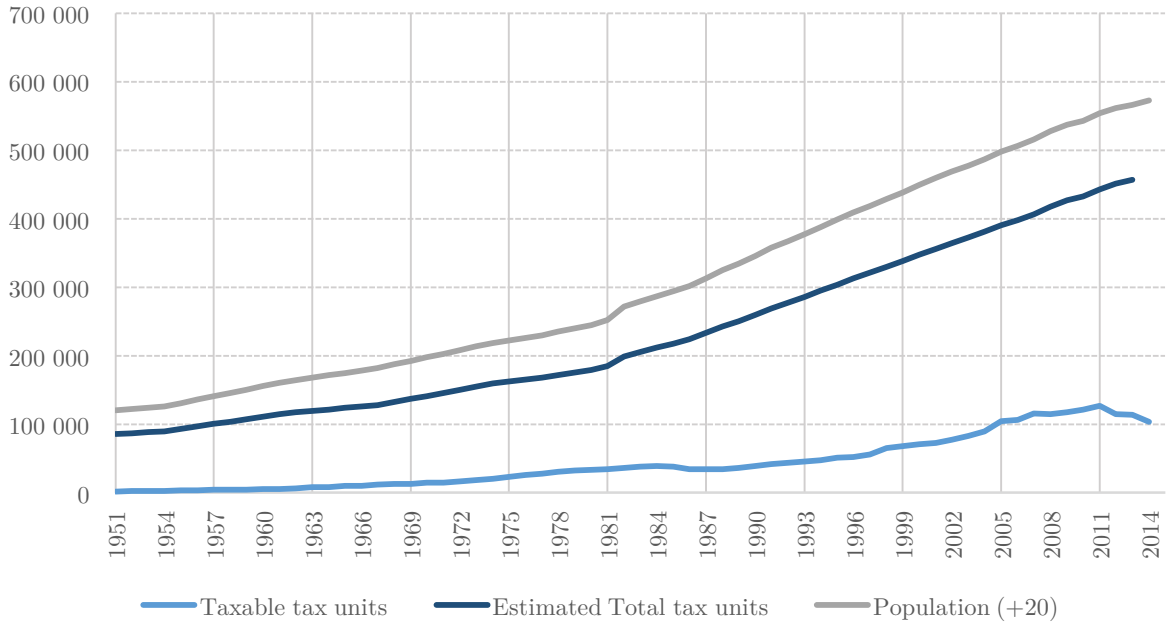
Source: Population census (INSEE), Etats 1921 and DGFiP

Since the French tax system requires joint filling for couples, our control total for population can be estimated using information about the population which is liable to pay taxes and data on married couples. From French population surveys[24] and the INSEE estimates of the population, we obtain the population of adults defined as people above 20 years old. Similarly, the number of married couples is obtained from INSEE estimations of *FAM2* for recent years and from INSEE-Panorama publications for years 1954, 1961, 1967, 1974 and 1982, which corresponds to the years in which the population census has been conducted. To estimate an interrupted series for the number of married couples throughout the years, we have used a linear interpolated for the remaining years. This allows us to calculate a hypothetical control population as the difference between the total population above 20 years of age and the number of married couples as follows:

$$Control\ Population = Popn\ (+20) - Number\ of\ married\ couples$$

A detailed explanation of the steps involved in the estimation of the control total for population is given in the Appendix B.

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[24] Rencensement Population (RP)

As seen in Figure 3.2, the fraction of tax unit subject to positive income tax has hovered around 20-30% in La Réunion, a much lower level than in metropolitan France which stabilised around 50-60% (Garbinti et al., 2017). As expected, the proportion of tax unit subject to income declaration has increased over the years and was gradually made mandatory for all tax units. However, this shift in La Réunion comes much later than in metropolitan France, whereby all the tax unit were required to fill a tax form and declare their income as from 1985.

Figure 3.2: Fraction of tax unit subject to declaration and income tax
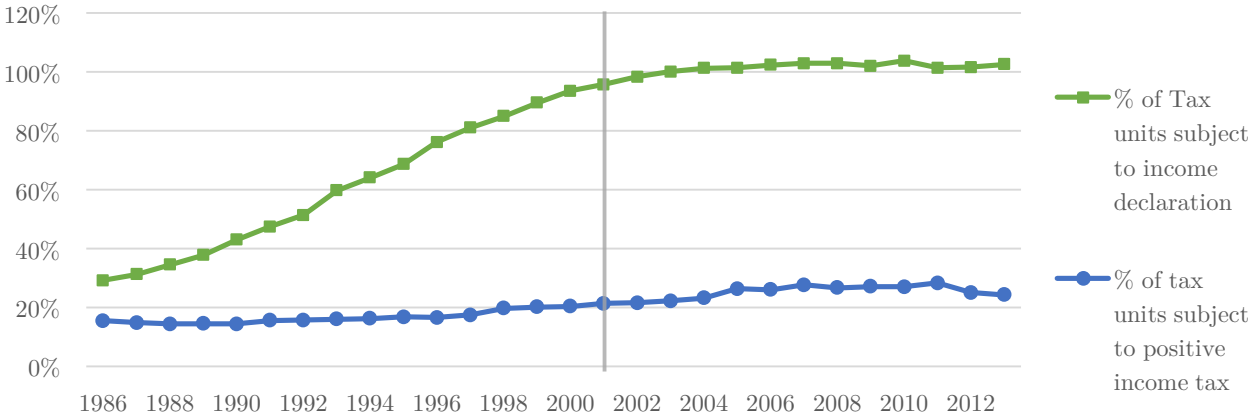
Source: Own estimation based on INSEE (RP), Etats 1921 and DGFiP

Note that the control population is not perfectly equal to the number of tax unit subject to income declaration if for instance, young adults are still dependent on their parents, hence entering as a single tax unit or due to the occurrence of marriages and divorces during the fiscal year. Following this estimation, it is assumed that all tax units are required to declare their income as from 2001 in La Réunion.

3.2.3   Control Total for Income

In order to estimate the income shares, there is a need to estimate a comparable control income for the full population which is the denominator of the measure. This control total for income would need to reflect the total income which would have been reported if all the tax units were required to fill a tax form. As assumed in the previous section, all tax units are required to declare their income as from 2001 and hence, the control income for those years corresponds to the total taxable income observed in the tax data. However, for the years prior to 2001, a control income for population needs to be estimated. Two approaches with two different starting points have been employed in the literature to make such an estimation. The first one consist of starting from the

income observed in the income tax data and adding an imputed income for the non-filers. The second approach uses an external control, typically national accounts corrected for non-household income and other non-relevant incomes to obtain the taxable income as used by Piketty (2001). The national income relates to the taxable income in the following way:

Table 3.1: National accounts and Taxable Income

	Balance of Primary Income
(-)	Non-household incomes
	Household sector total income
(-)	Items not included in the tax base
	Household Gross income
(-)	Non-declared income
(-)	Non-filers
	Declared taxable income of filers

Source: Atkinson et al., (2011)

Fiscal income may hence diverge from national income due to production taxes and the part of income not subject to taxation and thus not declared in the tax data. The latter may include imputed rent (rental income from owner-occupied housing), employers' and employees' social security contribution, tax-exempt life insurance income and other tax-exempt income, for instance interest paid to deposits and savings accounts and non-taxable transfer payments. On the capital front, fiscal income also excludes corporate retained earnings and corporate taxes.

In this paper, we adopt the second approach of estimating a control income. However, due to the lack of detailed national accounts data at the departmental level in France, especially so for the overseas departments, we build our estimation of a control total for income based on the series established for France[25]. The steps used in the estimation are detailed in the Appendix C.

In order to construct a series for the control income, we first need to have a series of the GDP of La Réunion over these years. For the years 2000-2014, the GDP estimates are obtained from the National Accounts at the departmental level available on the

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[25] For a detailed explanation of the steps involved in estimating the control total for income for France, refer to Appendix G of Piketty (2001) and the Appendix C of Garbinti et al., (2017) for an updated version.

online database of the INSEE. For the years prior to that, we are able to get an estimate of the GDP of La Réunion for the years 1973 to 1994 from various INSEE publications, mainly the *Annuaire Statistique de La France*, INSEE *Panorama* and INSEE *Tableau Economique de La Réunion* (TER). Naturally, we do a linear interpolation for the years 1995 to 1999. The ratio of the GDP per capita between La Réunion and France is shown in Figure 3.3. Prior to 1973, there are two possible scenarios of the situation in La Réunion. The best case scenario would be to assume that the proportion of the GDP per capita of La Réunion in the GDP per capita of France has remained constant at 30% since the 1960s. However, given the later catch-up trend, we might also expect that La Réunion was poorer in 1960s, hence the second case, whereby we assume a linear trend since the 1960s. The top income shares for the year 1960 will thus be presented under these two possible scenarios.

Figure 3.3: Proportion of GDP per capita of La Réunion in France GDP per capita
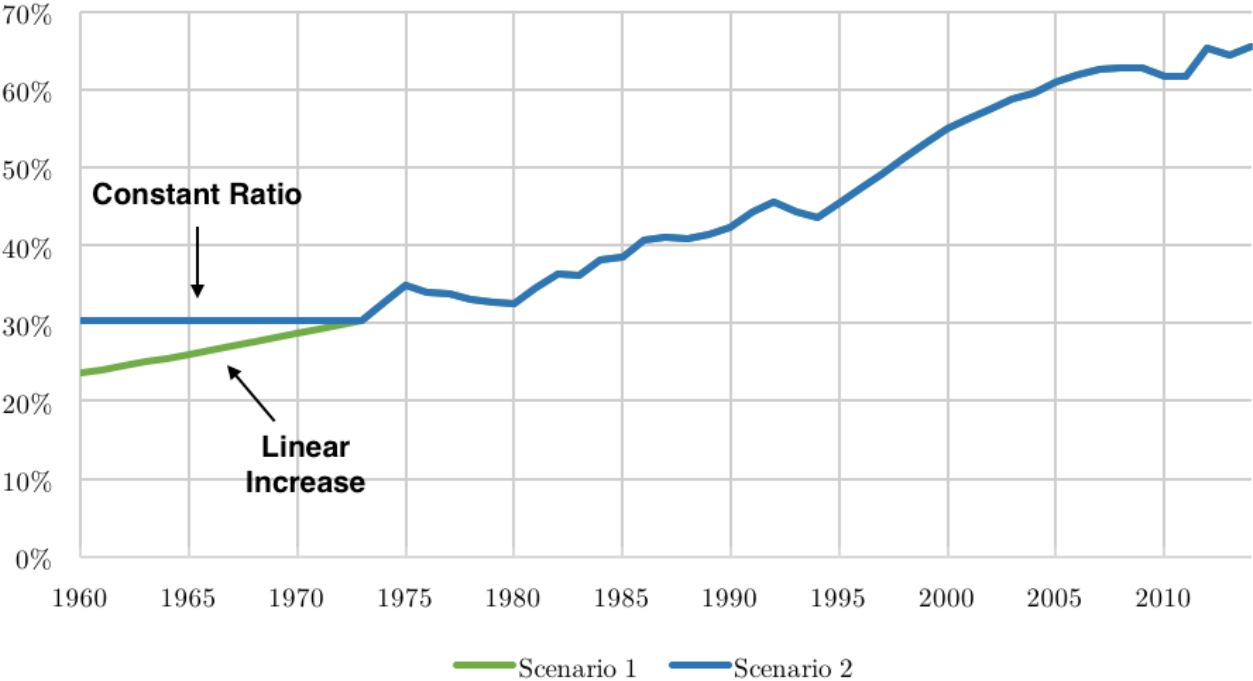
Source: Own estimations based on National Accounts and INSEE publications

We then estimate the ratio between the average taxable income per adult population of France to its GDP per capita. Based on the assumption that all the tax units declare their income as from 2001 in La Réunion, we estimate the ratio between the average taxable income per adult population of La Réunion to its GDP per capita for the years 2001 to 2014. We then assume that the relationship between these two ratios remains constant at 1,26 (See Appendix C for more details) and are thus able to estimate the

ratio for La Réunion and consequently, the taxable income for La Réunion for the years before 2001.

3.2.4 Definition of income and corrections

The definition of income used by the administrative tax is the net taxable income which is the fiscal income less some deductions. However, since our income definition of interest the income reported on tax declarations before any adjustments, namely the fiscal income, there is a need to correct the taxable income for these deductions to obtain the fiscal income. This is especially so since these deductions change over time and may lead to biased estimations of trends. In France, the tax law allows for various deductions which are as follows:

i)   A 10% lump-sum deduction for professional expenses of wage earners, currently capped at 12 183€ per member of the tax unit.

ii)   An additional 20% deduction for wage income, up to a ceiling. It has been repealed in 2006.

Apart from these deductions, we also correct the series for capital gains, with and without re-ranking based on the estimations made for the French series. Figure 3.4 shows the trend in taxable income based on the estimation described in section 3.2.3 and fiscal income based on the above-mentioned corrections since 1985, with a clear jump in taxable income in 2006 due to the repeal of the 20% deductions for wage income.

Figure 3.4: Trend in Taxable and Fiscal Income estimates
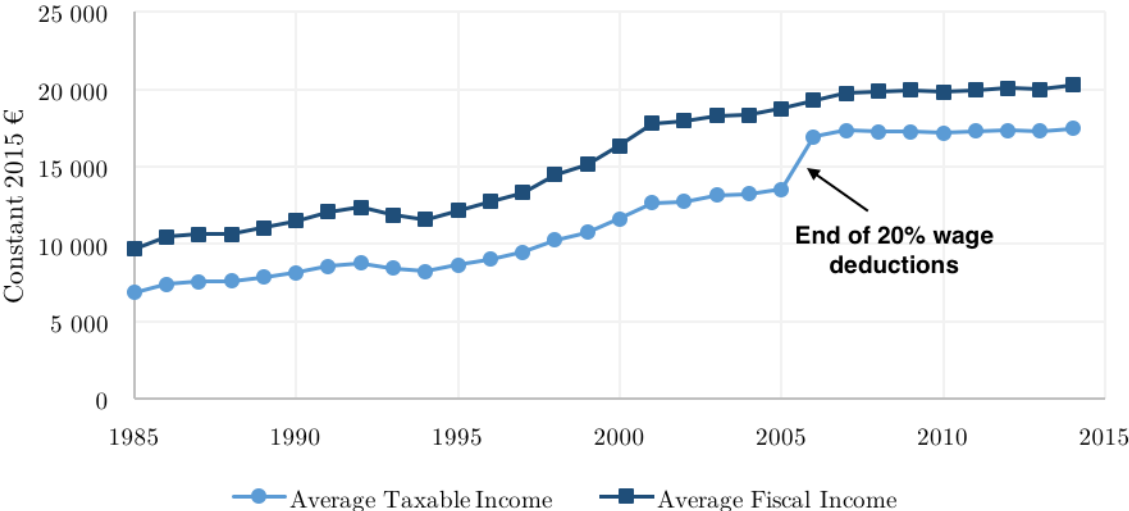
Source: Own estimations based on DGFiP data

Given these corrections, Figure 3.5 shows the average fiscal income in La Réunion and France since 1960s onwards. At its peak, the difference between the two was at 16 000 € and this gap has narrowed down over the years but still remains at 10 000 € in the recent years.

Figure 3.5: Average Fiscal Income in La Réunion and France
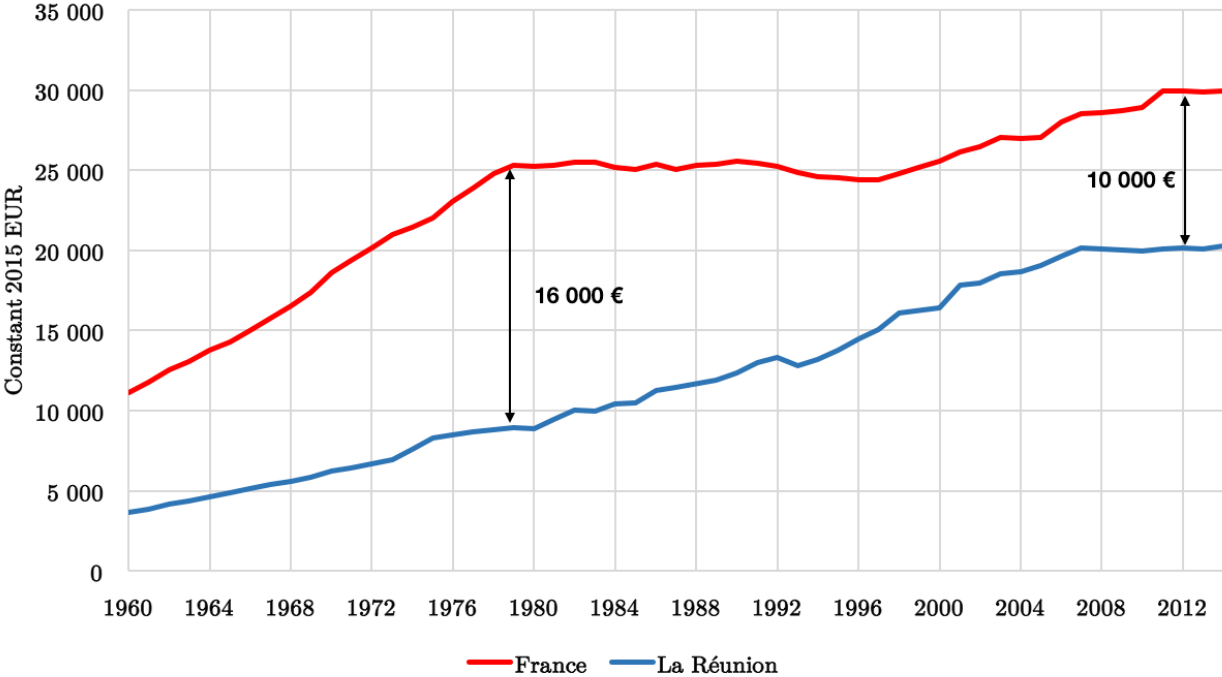
Source: Own estimations for La Réunion & Garbinti et al., (2017) for France

3.3 Fiscal Data

3.3.1 Advantages of fiscal data

A large part of the literature on top income shares has made use of tax data. The analysis of the top part of the distribution provides a lot of insight for political economy debates as in some cases, they concern a huge proportion of total income. However, given the various limitations of fiscal data, an alternative to this source of data would be to use household budget surveys. However, the latter has various limitations since it is subject to misreporting especially at the upper end of the distribution. This may take the form of under-reporting or top coding for confidentiality reasons and precisely to avoid the issue of misreporting. Hence fiscal data represents a more reliable source of data when looking at top incomes. Moreover, fiscal data has been collected and annual records are thus available since the onset of the imposition of income tax, which back to the 1940s in La Réunion and 1930s in Mauritius. A similar analysis using household budget survey would not have allowed for such a historical series. For

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instance, the *Enquête Budget de Famille* in France was first conducted in the DOM in 1995 and are available every five years, compared to annual tax data. Perhaps an in-depth, yet more tedious work would require an analysis of income inequality which combines both tax data and household budget surveys.

3.3.2   Limitations of fiscal data

While the use of tax data has been adopted by various works contributing to the WID database, some caveats should be acknowledged. In particular, fiscal income is not devoid of measurement and technical problems. First, fiscal income might diverge from national income and be biased due to tax exemptions, tax avoidance and evasion. Hence, the estimations obtained might understate the income accruing to the top to the extent that part of their income are not declared. This is especially the case since the rich have more incentive to under-declare their incomes or redirect their income to tax havens to avoid paying taxes. Moreover, there are various factors which makes analysis of income inequality estimates based on tax data in different countries and across time not perfectly comparable. In fact, since these data are primarily for administrative purposes, the income definitions and unit of analysis might differ, in which case the comparability of two series relies solely on the ability of corrections to reach a common definition. In addition, the focus on pre-tax and pre-transfer income inequality do not take into account redistributive effects of public policies may vary from country to country.

4 Results

Before looking at the top income shares, we will present the different thresholds for La Réunion and France. Figure 4.1 depicts the minimum amount required to be part of the top 1% of the distribution (P99), the top 10% (P90) and the bottom 50% (P50). We can see that La Réunion has a lower threshold in almost all the cases, except for a brief period in the mid-1990s for the top 1%.

Figure 4.1: Thresholds of income (P50, P90 and P99)
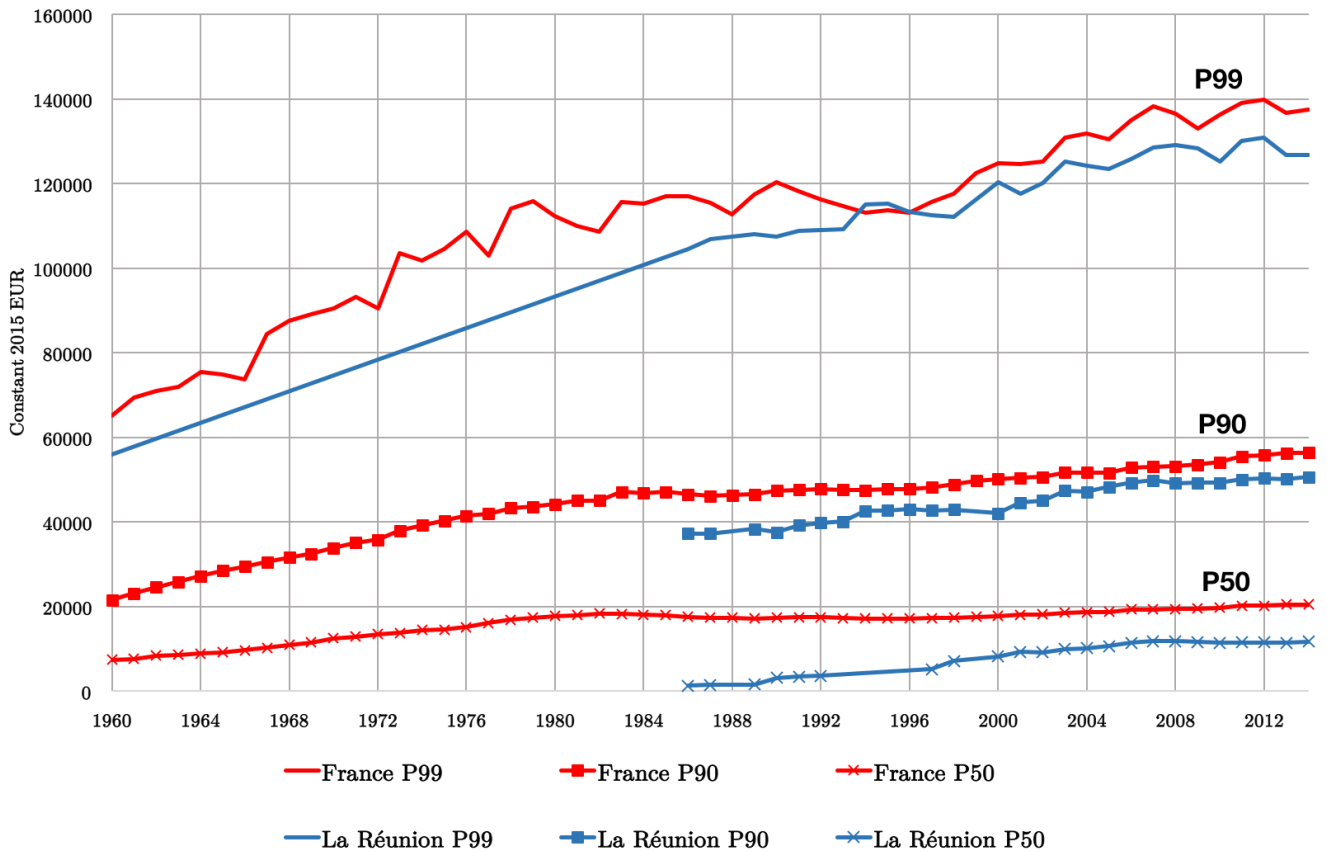
Source: Own estimations for La Réunion and Garbinti et al., (2017) for France

The difference in the thresholds between La Réunion and France has narrowed down over the years and more significantly for the bottom 50%. It can more clearly be seen from Figure 4.2. The latter depicts the ratios between the threshold of income between La Réunion and France, as well as the ratio between the average fiscal income between the two. It can be seen that while the ratio of the threshold for the top 1% and top 10% between La Réunion and France has been very close to 1, the bottom 50% is significantly less than 1. Second, the most rapid catch-up has occurred at the bottom of the distribution with the ratio for P50 going from 0.1 to around 0.6 over the period. This has contributed in an increasing ratio between the average fiscal income in La Réunion and France.

Figure 4.2: Ratio between thresholds and average fiscal income between La Réunion and France
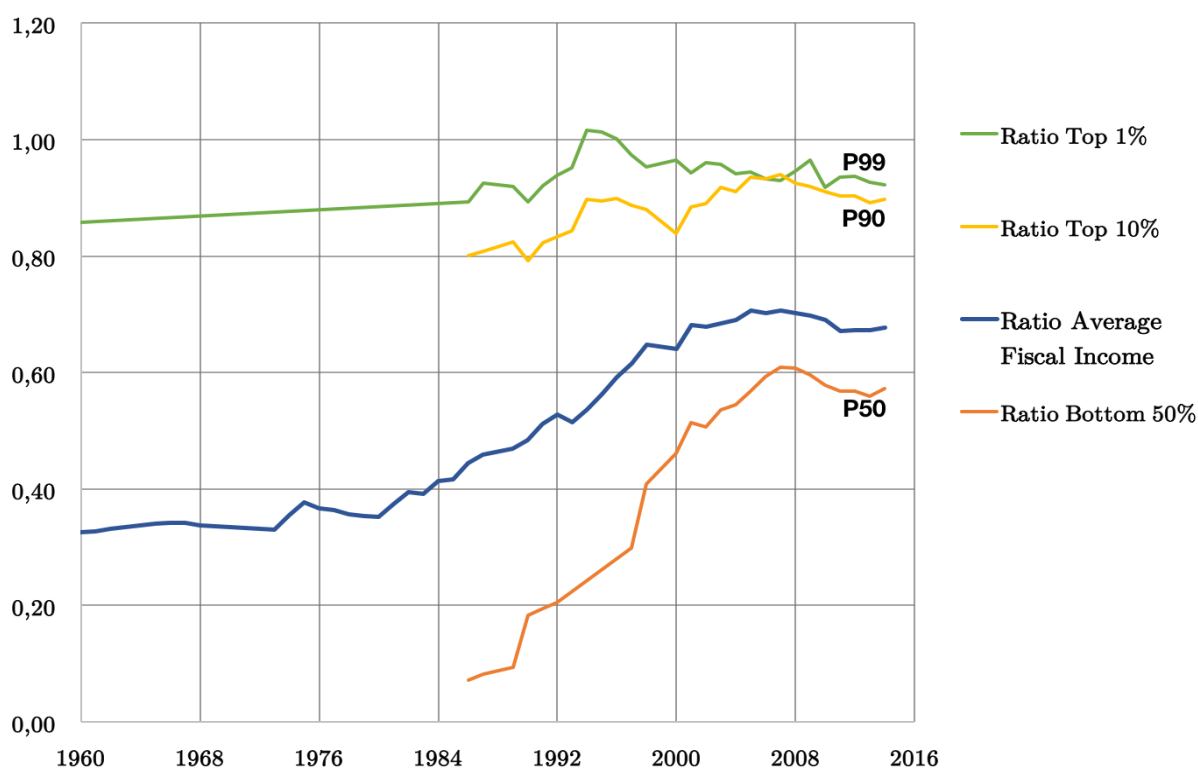
Source: Own estimations

This section presents the results[26] obtained from the estimation of the top income shares for La Réunion. It puts this analysis in perspective by also reporting the trends in top income shares for France obtained by Garbinti et al., (2017). In order to understand the following series, one needs to grasp the concept of top income shares. As an illustration, in a perfectly egalitarian economy, the top 10% of the distribution would own 10% of total income. Similarly, the top 1% would own 1% of total income. If the share of the top 10% is estimated to be 20%, then the top 10% own twice the income they should have owned under a perfectly egalitarian economy. Evidences from the WID series suggest that the Scandinavian countries have the lowest levels of inequality with top 10% shares at around 20%.

The results presented here represents an almost complete series from 1986 to 2014, with the exception of 1988 and 1999. For the years prior to 1986, given the paucity of data, I have only been able to obtain a rough approximation of the top income shares for the year 1960. The estimate for the top 1% for the year 1960 is estimated under two scenarios as detailed in section 3.2.3. Under the first scenario, we assume that the ratio between the GDP per capita of La Réunion to the GDP per capita of France has

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[26] The results may change slightly due to revisions in the future

evolved linearly between 1960 and 1973, implicitly assuming that La Réunion was poorer in 1960 than in 1973. Under the second scenario, it is assumed that this ratio has evolved constantly from 1960 to 1973 since 1973 is the year for which we have an estimate of GDP per capita for La Réunion. A more precise estimate of the GDP of La Réunion in 1960 might alter the estimates of the top income shares. However, we expect it to remain much higher than the ones in mid 1980s.

4.1 Top 10%

It is clear from the results presented in Figure 4.3 that La Réunion has higher levels of inequality than France as captured by the share of income accruing to the top 10% of the distribution. Two main facts seem to stand out from the top 10% shares of La Réunion from 1986 to 2014. Firstly, inequality in La Réunion was very high in the mid-1980s, with the top 10% having around 63% of total income (6.3 times more than their proportionate share). Second, there is a clear downward trend in the top 10% income shares as from 1986 to 2007, going from 63% to 43% in almost 20 years.

Putting these results into perspective with France, it can clearly be seen that the declining trend in the top 10% share since the mid-1980s until the 2000s has been a trend specific to La Réunion and not driven by a general similar national trend. It is also striking to see that despite being a single country, the top 10% share is consistently higher in La Réunion than the general level in France. This gap still prevails even after the completion of the catch-up process in la Réunion in the year 2000s, stabilising at around 43% in La Réunion compared to 34% in France in recent years.

Figure 4.3: Evolution of top 10% share in La Réunion & France
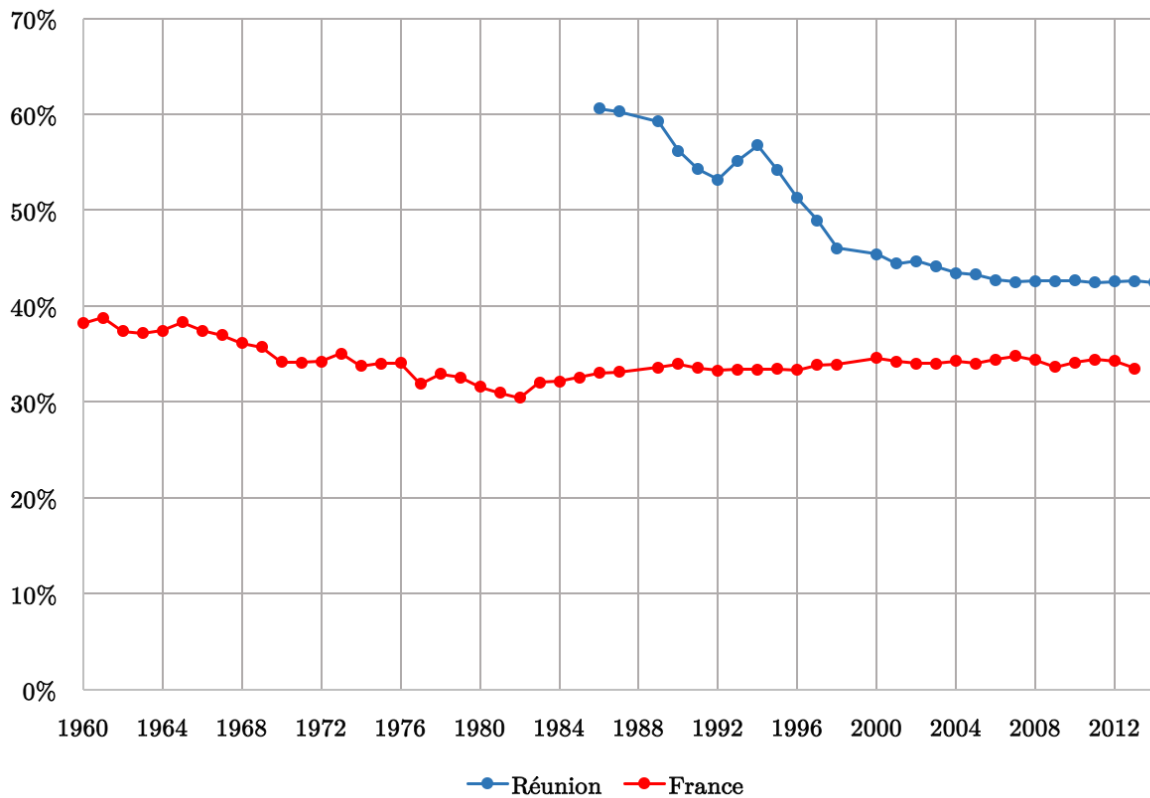
Source: Own estimations for La Réunion (See Appendix) and Garbinti et al., (2017) for France

4.2   Top 1%

Looking at the top of the distribution, namely the top 1% as depicted in Figure 4.4, we can see a similar downward trend from 1986 to 2000. The estimated top 1% share in the year 1960 is extremely high at 41% under scenario 1 and 32% under scenario 2. This share goes down significantly to 15% in 1986 (15 times their proportionate share). This downward trend has continued throughout the period until 2000, reaching 10%. Except for a slight increase in the next 3 years, the top 1% share in La Réunion has been remained at around 10% until 2014.

Comparing the top 1% share in La Réunion to the series in France from 1986 to 2014, it can be seen that the difference between the two since 2004 is not clear-cut anymore, with France's top 1% share fluctuating between 9 -10% between 2004 and 2014. However, focusing on the period prior to 2004, there is a clear gap between top 1% shares in La Réunion.

Figure 4.4: Top 1% share in La Réunion and France

Figure 4.5 presents the results for La Réunion as well as the top income shares of France and the US for the period 1960 to 2015. It can be seen that the top 1% share in La Réunion in 1960 is much higher than the estimates for France and the US. However, in the mid-1980s, it is not the case anymore. La Réunion's top 1% share is at the same level of the US and it is much lower than the latter as from 1995. As for the top 10%, it is interesting to see that in the mid-1980s, La Réunion had a higher share compared to the US which is considered as one of the most unequal countries. However, since the mid-1980s, La Réunion's top 1% share witnesses a rapid decline. At the beginning of the 21st century, this share is still higher than the one of France but is lower than US' top 1% share. Hence, Figure 4.3 gives an idea of the extent to which La Réunion was unequal since 1960 to the early 2000s.

While, there is extreme inequality in La Réunion in the year 1960, the top 1% in France at the same time has around 11%. In fact, at its peak in 1923, the top 1% share in France reaches 23%. It is also interesting to note that despite this sizeable distance between the top 1% shares of La Réunion and France in 1960, the two reaches an almost comparable level in the recent years. This being said, the absolute level of income required to be in the top 10% (P90) and top 1% (P99) is lower in La Réunion

than in France. For instance, in 2013, the P90 for La Réunion is 50 770 € compared to 56 413 € in France. Similarly, the P99 for La Réunion is 126 955 € compared to 136 792 € in France.

Figure 4.5: Top 1% and Top 10% Shares in La Réunion, France and USA
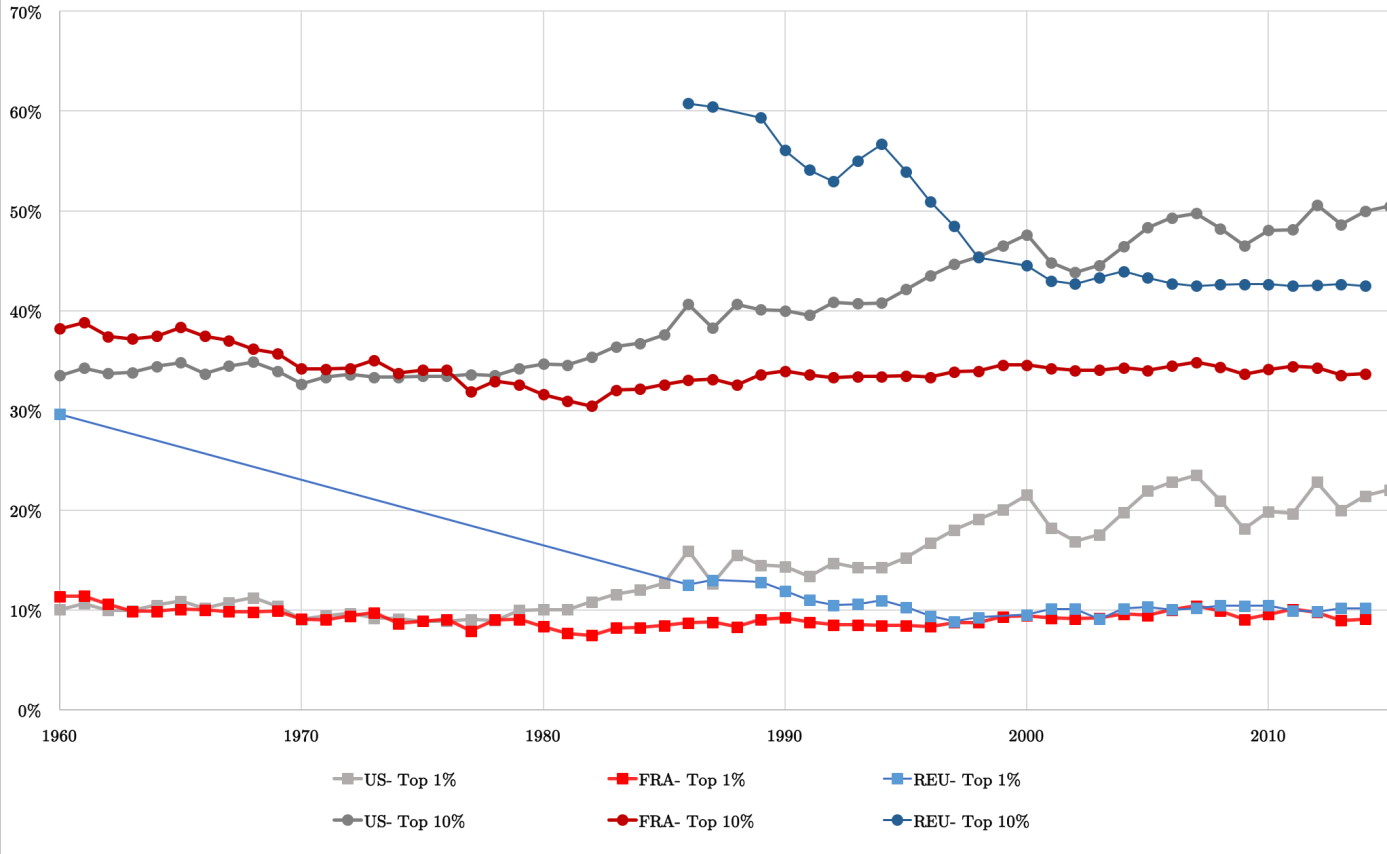
Source: Own estimations for La Réunion and WID

4.3   Top 0.1% and Top 0.01%

Figure 4.6 shows the evolution in the income concentration at the very top of the distribution, namely the top 0.1% and the top 0.01% for La Réunion and France from 1960 to 2014. For the top 0.1%, we again find that the share is relatively much higher in 1960 at 9.8%, which goes down significantly to 3.4% in the mid-1980s with a declining trend thereafter until the 2000s. After 2000, it hovers around 2.5%, with a low of 1.7% in 2012. When compared to France, we can see that the estimate for La Réunion is 1960[27] is higher than France during the same period. In fact, France had comparable shares of 9-10% in the early 20th century, more precisely during the period

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[27] We have kept scenario 2 as the reference for the year 1960. Please refer to section 3.2.3 for more details

1915 to 1923. With the catch-up phase in La Réunion since the mid-1980s, La Réunion reached a lower level of top 0.1% shares as from 1996.

Figure 4.6: Top 0.1% and Top 0.01% share in La Réunion and France
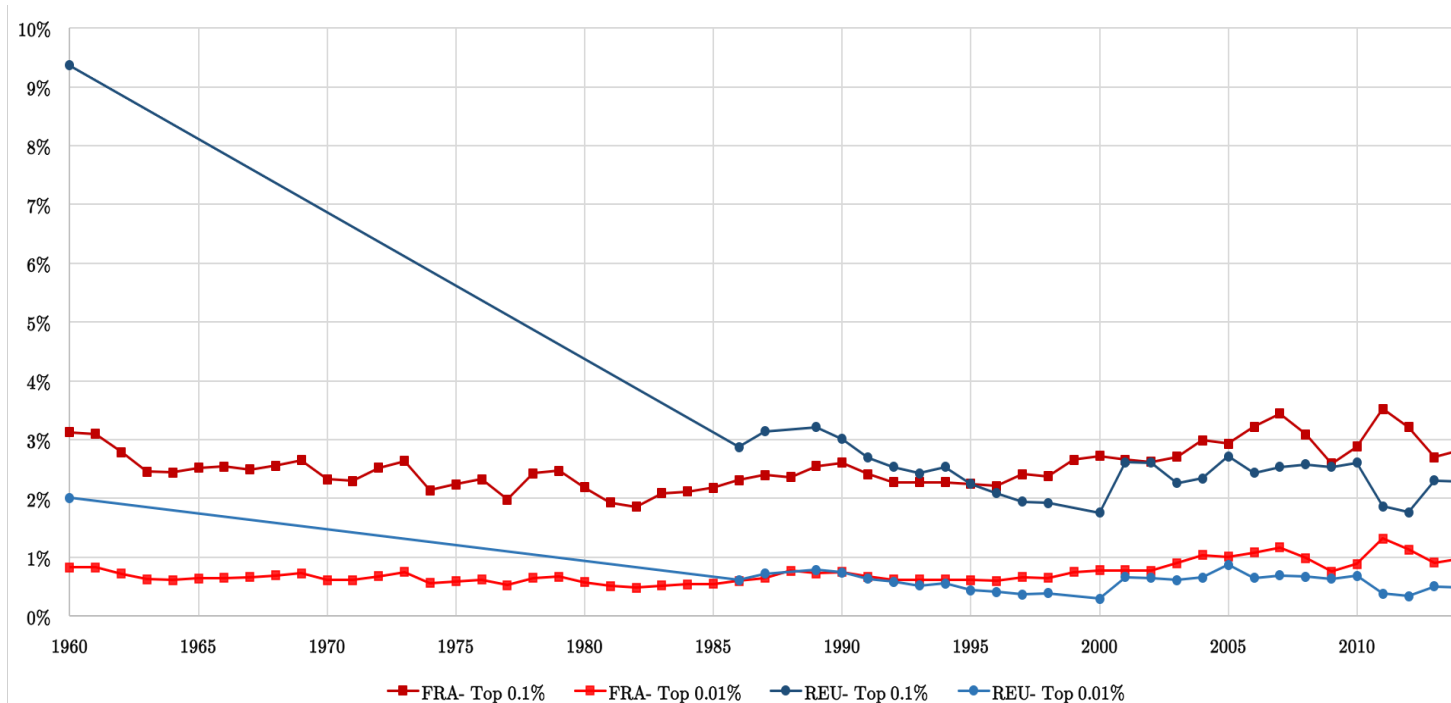
Source: Own estimations (See Appendix)

The top 0.01% also follows the same pattern with a very high top 0.01% share of 2.1% for La Réunion in 1960 thereafter falling to around 0.8% in the mid 1980s. However, the top 0.01% share goes back to its previous level after a declining trend from the end of the 1980s to 2000. In comparison to France, we can see that the series from 1896 to 1994, the top 0.01% have the same share of income in La Réunion and in France. Since 1995, the series for La Réunion tends to be lower than that of France. As for the estimate of 1960, France has a lower top 0.01% than La Réunion during the same period. However, from a longer historical perspective, France has witnessed a top 0.01% in the range of 2-5% during the period from 1910 to 1930.

4.4   Bottom 50%

The generalised Pareto interpolation technique also allows us to estimate the share of income going to the bottom 50% of the tax units. Figure 4.7 depicts this share since the 1990s. It can be seen that in general, the share accruing to the bottom 50% is very low over the whole period. This is especially so in the 1990s whereby the bottom 50%

had only around 5% of total income. This implies that the average income of the bottom 50% of the population was approximately 10% of the average income in those years. The bottom 50% has since then increased to 8-10% in the recent years. A likely explanation for these low level of income accruing to the bottom of the distribution could be that the GDP series for La Réunion has been under-estimated. This might be due to the existence of an informal sector not captured in the GDP estimates. Hence, there will be a need to obtain an estimate of the informal sector to have a better picture of the bottom of the distribution.

Figure 4.7: Bottom 50% in La Réunion & France
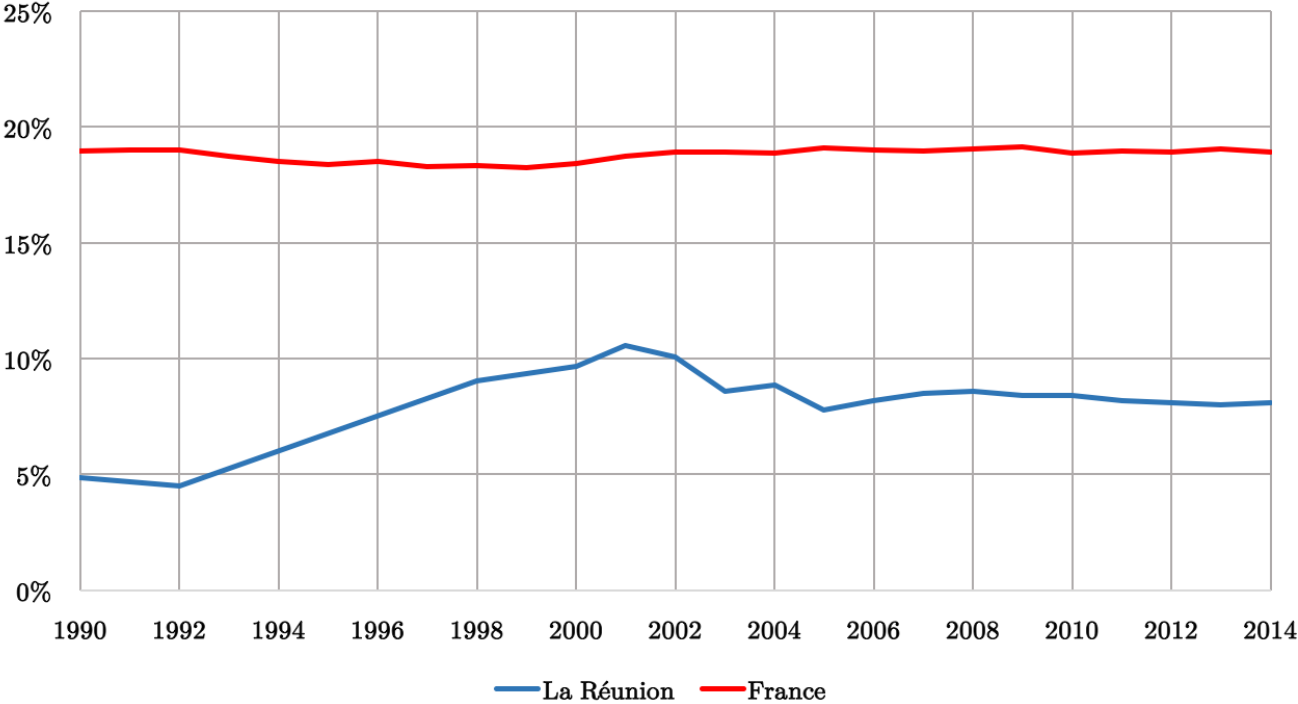
4.5 Interpretations

A likely explanation for the extremely high level of inequality from 1960 to 1990s could be in terms of the relative wages paid in La Réunion, especially that of civil servants with respect to the rest of the population. La Réunion in 1960 was characterised by a low level of literacy and low proportion of qualified people as seen in Figure 4.8, an increase in its public sector employment and the onset of mass unemployment and under-employment. This is partly due to an abrupt shift of the economy away from the agricultural sector to the tertiary sector. In fact, the share of the agricultural employment in total employment dropped from 43.6% in 1961 to 22% in 1974 and further down to merely 7% in 1990. The unemployment rate, first estimated in 1967

stood at 23% (Roinsard, 2013). Thereafter, the unemployment rate has fluctuated between 30% to 40%. Given the qualification requirements to get a public job, the public sector employment has for long penalised the native unemployed who are mostly under-qualified or not qualified at all. In fact, the number of people from metropolitan France living in La Réunion, the vast majority occupying high-ranks civil service jobs, went from 3 200 individuals in 1961 to 37 400 in 1990 (Roinsard, 2013).

Figure 4.8: Proportion of degree-holder out of adult population in La Réunion
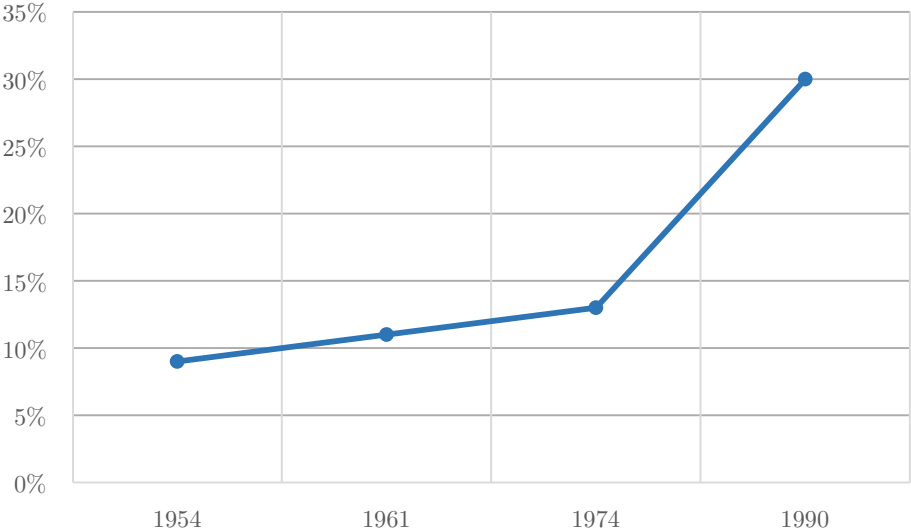
Source: Roinsard (2013)

Moreover, the level of the minimum wage in La Réunion, set at a lower rate than mainland, has been aligned to the rate prevailing in metropolitan France only since mid-1990s as seen in Figure 4.9. On the other hand, the level of the wage of civil servants in La Réunion, being at par with the metropolis, was in itself very high relative to the wage level prevailing in La Réunion. In addition to this, public employees were also paid a salary premium of 25%[28] on top of the standard wage. As pointed by Cogneau and Dumont (2000), the premium wage of public servants has a regressive effect on the income distribution in La Réunion. All of these factors combined implies that in the 1960s, the labour market was marked by a polarisation; on one hand there were highly qualified and well-paid public servants and on the other hand, a large segment of low-income earners as well as unemployed people. While the public jobs provided for a stability and job security, the rest of the population were mostly employed in seasonal employment characterised by large uncertainties.

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[28] Later revised in 1957, 1971 and 1979 to a rate of 53,6% today

Figure 4.9: Hourly Minimum Wage[29]
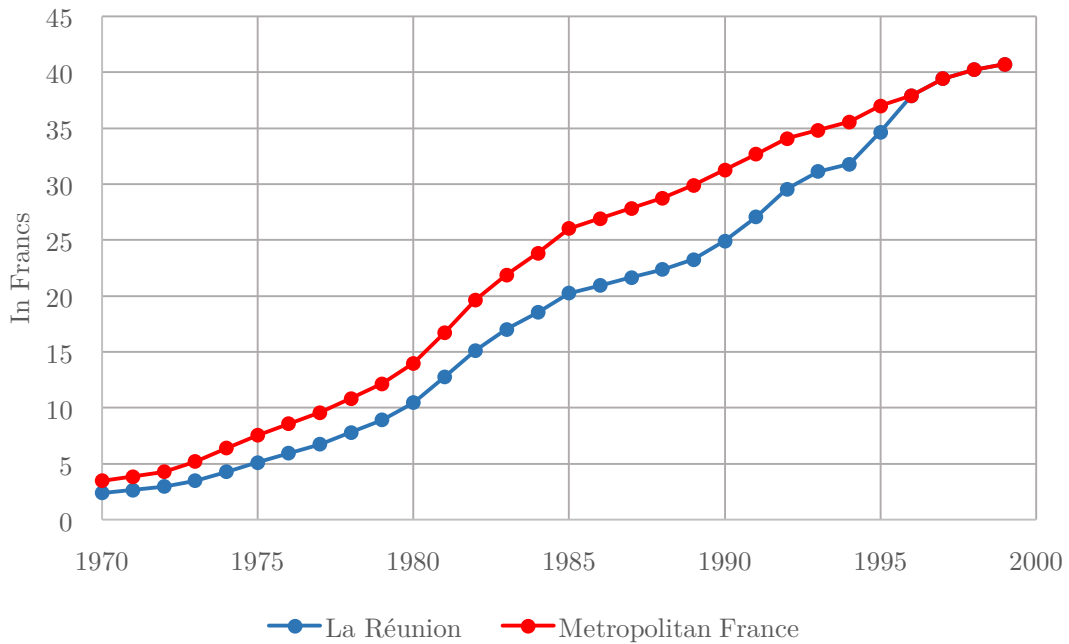
Source: INSEE publications (TER)

Based on Figures 4.3, 4.4 and 4.5, we notice that while the concentration of income in the top 1% in La Réunion is not so different than the one in France, the top 10% share is indisputably higher in La Réunion. This implies that the P90-99[30] has a higher share of income in La Réunion than in France throughout the period from 1960 - 2014. Hence, it seems that in La Réunion, it is not the extremely rich individuals who primarily explain the high top income shares, but those earning a slightly lower but still adequately high earning. Civil servants' wages could fit in this category. In 2010, for instance, the P87[31] and P90 in La Réunion were around 40 000 EUR and 47 000 EUR respectively. According to INSEE data, the average salary in the public sector in La Réunion in the same year was around 40 000 EUR and that of a regularised public servant is 57 000 €. This is compared to an average salary of 33 000 EUR for the public sector in metropolitan France, hence a 20% higher average public wage in La Réunion. The public sector employs 30% of the active population and 56% of them are regularised (permanent) workers earning the public wage premium. This benefit concerns 44 000 employees in recent years.

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[29] As at 1st of July

[30] The bottom 9% of the top 10%

[31] The threshold of income above which the individual is in the top 15% of the income distribution

Hence, even after the completion of the catch-up phase in La Réunion, we observe an average public servant's salary that is close to the top 10% of income. In the private sector, the average wage earned by an executive is around 50 520 €, well above the P90 threshold. On the other hand, the average wage earned in the whole private sector was 12% lower than that of metropolitan France in the same year, with a higher proportion of low-skilled workers in La Réunion than in metropolitan France. With a lower average income in previous years, we expect the civil servant's wages to have crossed the P90 threshold, especially from 1960 to the end of the 20th century. Hence, while a part of the population earns relatively high wages on average, the rest of population earns very low wages. In fact, according to the INSEE, the ratio between the minimum wage and the minimum public servant wage was at around 0.40 in the 1980s and has increased to 0.50 in the 1990s, compared to 0.94 in metropolitan France.

Moreover, the declining trend in the top income shares observed in La Réunion from 1960 to 2014 can be explained by the following factors. First, with the devolution of power from the central government to a local departmental-level administration in 1985, the latter could implement more context specific policies in La Réunion. As detailed in section 2.2.2, there has been an explicit effort by the local-level government to bring more equality since its departmentalisation in 1946 and even more so since the creation of the Regional Council in La Réunion in 1985. Several policies were implemented over the course of this period. The ones which are the most relevant in this setting of pre-tax and transfer level of inequality are mainly the alignment of the minimum wage (SMIC) to the level of metropolitan France, as well as the reduced cost of social contribution implemented since 1994. Second, the catching-up process has not only been in terms of the alignment of social policies with metropolitan France, but also in terms of rapid growth. As seen in Figure 3.3, the GDP per capita of La Réunion as a proportion of the GDP per capita of France has increased from 30% in 1973 to 65% in 2014. In effect, our results point to the fact that from 1960 to 2000, the growth in the economy of La Réunion has mostly benefited the bottom 50%. As a result, since real wages of civil servants being roughly constant, it has led to a decrease in the level of top income shares.

The trends in income shares observed here are confirmed by the existing literature on income concentration in La Réunion. In fact, based on a review of the literature, Temporal (2006) categorises the period 1977 to 1994 into 3 distinct phases. First, the period 1977 – 1987 has seen a decline in the income of the well-off households leading to a higher concentration of income at intermediary levels. The period 1987 – 89 has witnessed an increase in the income of modest households followed by the last phase 1989 – 1994 of catch-up with metropolitan France as described above. In fact, the relative poverty rate in La Réunion went from 20-25% in 1977 to 15-20% in 1989 and further down to 10-15% in 1994 (Temporal, 2006). The poverty level is closely related

to the high unemployment rate prevailing in La Réunion biased towards the bottom end of the distribution, affecting mostly the illiterate, the unqualified and the low-skilled workers. There is a consensus in the literature that there is a greater disparity between La Réunion and France at the bottom of the distribution and less at the top. It is moreover interesting to understand the evolution of the top income shares in La Réunion from an international perspective. The next section lays down a comparative study with Mauritius and other socially-divided countries.

5 International Comparisons

5.1 La Réunion & Mauritius

5.1.1 Economic Situation of Mauritius

Separated by a few hundreds of kilometres of ocean from La Réunion, Mauritius is located on the east of La Réunion. Mauritius is best known for its economic success in the area as it ranks favourably high on many economic scores. It demarcates itself from other African countries by having a stable political environment, a rapid economic growth and a competitive and diversified economy. What is even more remarkable is that it has been able to achieved this in a span of 40 years after its independence in 1968, defying the gloomy predictions of the Nobel prize economist, James Meade. Against all odds, Mauritius has witnessed a rapidly rising GDP per capita since the 1980s as seen in Figure 5.1. In fact, real GDP growth has averaged around 4% over the three decades. Various factors can be pinned down to explain this relative success and resilience to external shocks, despite being a small insular state.

Figure 5.1: GDP per capita in Mauritius
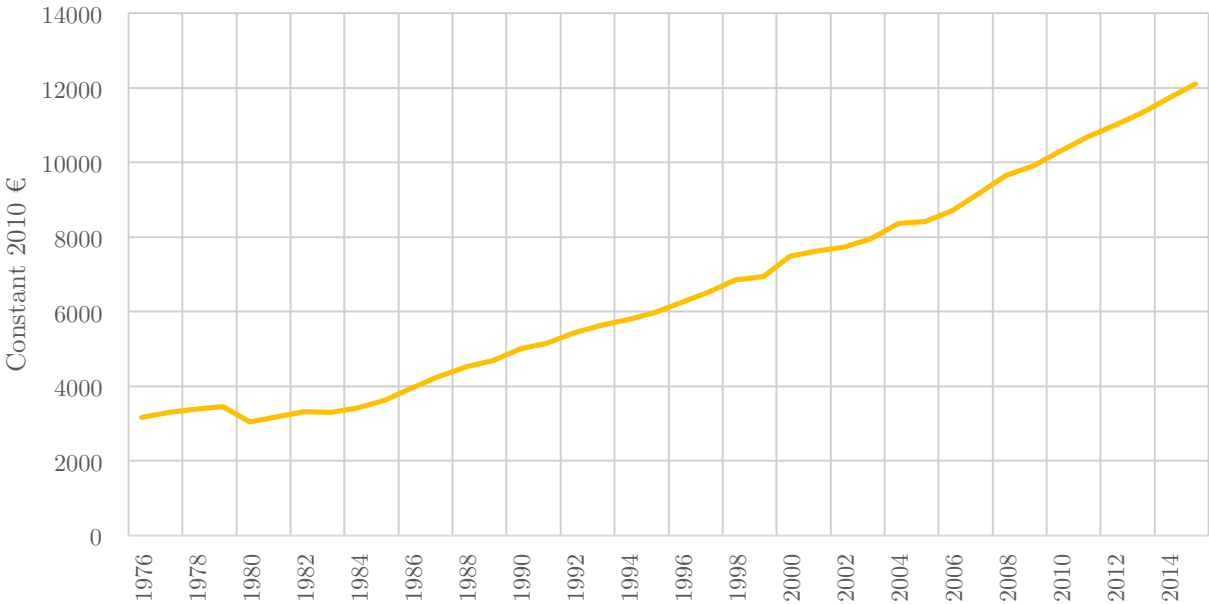
Source: The World Bank (WDI Database Archives)

Mauritius has, since its independence, capitalised on international trade. It has struck deals in terms of preferential trade agreements, especially with the European Union, for the export of sugar, textile and clothing. These agreements have helped to boosted the production and export for more than two decades since the 1970s. Additionally, the setting up of an Export Processing Zones (EPZs) in the 1980s is deemed to have been one of the keys behind the success of the economy.

Given its financial and political stability, the country has also been able to attract high levels of FDI, holding Double Taxation Avoidance Agreements with several countries. It has also developed a well-regulated offshore financial sector which has grown over the years. It currently ranks first in The World Bank's "Ease of Doing Business" in Sub-Saharan countries and 49th in the world. Mauritius is also at the top of the Ibrahim Index of African Governance (IIAG) 2015, an index aimed at measuring governance progress in Africa based on 14 categories, among which there is rule of law, accountability, education, health and welfare. In fact, the Mauritian government has made laudable efforts in improving its human capital. In this respect, it has, since its independence, massively invested in its social welfare system, providing for universal access to free education and healthcare system. These factors have largely contributed in transforming the economy from one which was doomed to fail to an upper middle-income one.

Figure 5.2: Real growth rate of GDP per capita in Mauritius
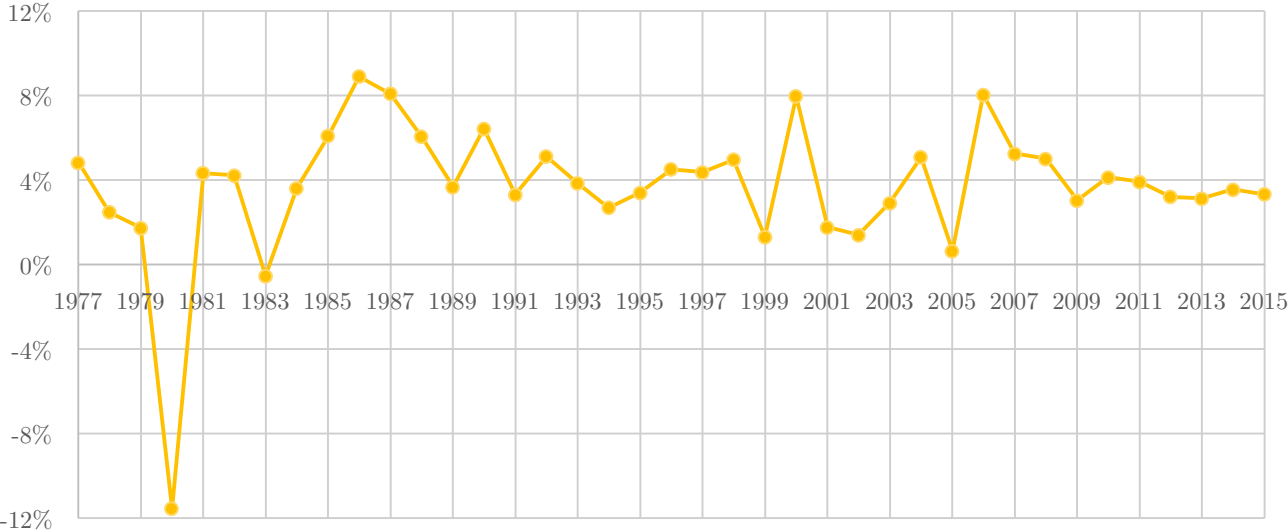
Source: The World Bank (WDI Database Archives)

For long, the Mauritian economy has been dependent on sugar production and oil imports. Hence growth rates have been highly sensitive to changes in world sugar prices and shocks in the oil market. In fact, the impact of the 1979 oil crisis on the Mauritian economy can be seen in Figure 5.2. Apart from this, benefiting from the Sugar Protocol which provided a guaranteed access to the European market for a given quantity of sugar at a preferential price since 1975 has enabled Mauritius to maintain a high growth rate throughout the years. However, this agreement has been dismantled on a phased-out basis since 2009.

Despite the slight volatility that can be witnessed in the income per capita growth rate, Mauritius has remained very resilient to shocks, especially in the aftermath of the 2008 financial crisis. This can be attributed to the extensively diversified economy that has been developed throughout the years. Despite starting as a mono-crop economy, Mauritius has been able to exploit its resources by developing its tourism sector and the financial sector. Similar to the experience in La Réunion, there has been a gradual shift of the economy away from agriculture can be observed in Figure 2.7, whereby the share of the primary sector in overall GDP has steadily decreased since the 1980s, reaching almost 3% in the recent years. The tertiary sector, on the other hand, has gained ground and its share in GDP has been increasing rapidly, especially after the 2000s.

Figure 5.3: Evolution of the share of each sector in the GDP
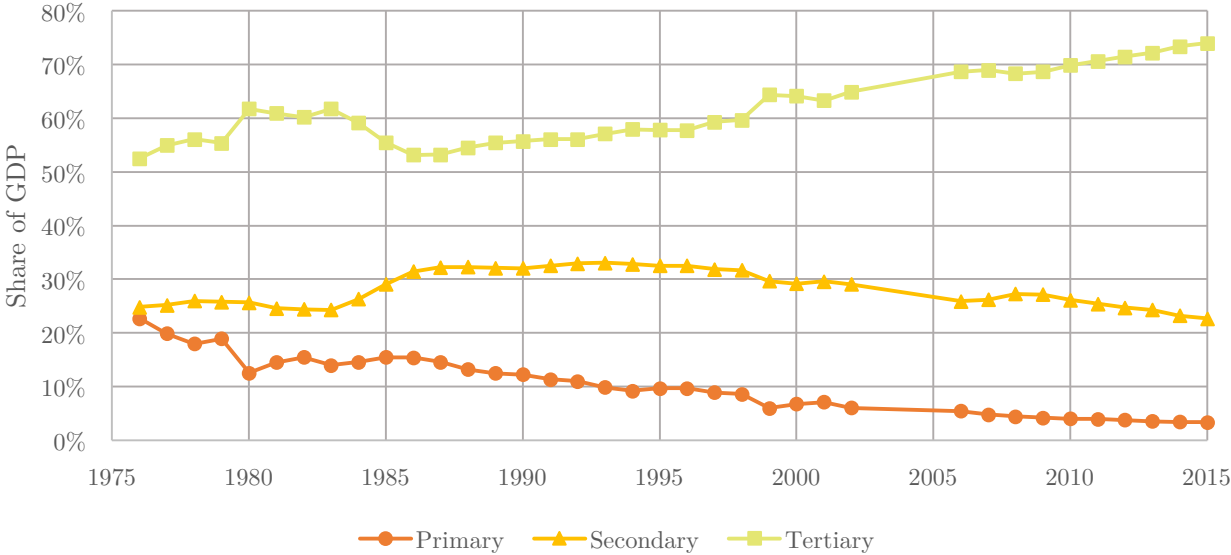
Source: Statistics Mauritius

However, despite the steady growth rate, The World Bank Group (2015) points to the disproportionate benefit from growth accruing to the middle and top part of the distribution, leading to an increase in income inequality in the recent decade. According to the report, this trend can largely be explained by variations in employment income, coupled with the ineffectiveness of the progressive tax and redistribution system to impact the overall distribution. To understand how Mauritius fares vis-à-vis its neighbour, this paper construct a completed series of top income shares in Mauritius. It builds on the extensive work of Atkinson (2011) which looks at the income distribution and taxation in Mauritius over a period of 75 years, starting from 1933. This period is of particular interest as it spans over both the British colonial era and the post-independence period until 2008. In his paper, Atkinson presents the evolution of top incomes in Mauritius with the aim to contribute to the historical record and

make the data accessible through the WID. As acknowledged in his paper, it remains a preliminary work and a more in-depth analysis of the evolution of top incomes in Mauritius would require a deeper understanding of its society and its economy. The present paper seeks to bridge the gap by shedding light on the historical trajectories which could explain the evolution of the income inequality observed in Atkinson (2011), putting it in perspective with respect to its neighbouring island, La Réunion.

5.1.2   Mauritian History

The history of Mauritius is similar to that of its neighbouring French island in various respects. Having been discovered by the Portuguese and Dutch in the 16th centuries, the then uninhabited Mauritius saw its first small settlement until 1710. Since 1715, the French who had already settled in La Réunion took possession of Mauritius naming it "Isle de France". Having more land suited for cultivation in Mauritius, the French developed a sugar cane plantation and built a port to boost its exports and trade. During the Napoleonic war, the British declared a battle on the French settlement in Mauritius, which they won at the second attempt in 1810. It is at this point in time that both Mauritius and La Réunion were surrendered to the British. Judged of lower strategic importance, however, La Réunion was handed back to the French under the Treaty of Paris in 1814. Until then, Mauritius was inhabited mostly by French settlers and African-origins slaves.

Figure 5.4: Historical Timeline of Mauritius
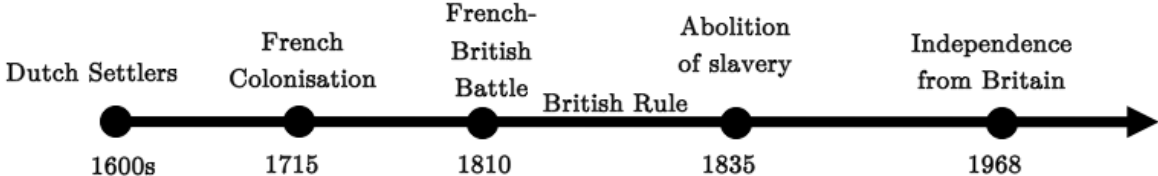
Thereafter, the island has remained under the British rule for more than a century until its independence in 1968. This period has witnessed the co-existence of the existing French settlers and the British administration together with other ethnicities at the lower ranks of the society. The overall hierarchical structure of the society has remained roughly similar to the ones in the mid-20th century and various historical factors can explain this structure. Land ownership and ethnic fractionalisation are identified as the main ones. The post-independence period has witnessed a continued existence of a few powerful economic elite and the existing pattern of land ownership is undeniably skewed in favour of the latter. As put forward by Barrett et al., (2016), land ownership has played a major role in shaping the level of inequality present in post-colonial Africa. Mauritius has also been marked by a more distinct ethnic fractionalisation than in La

Réunion. Finally, the recent years have seen the emergence of numerous projects that may have widened the gap between the rich and the poor on the island.

Land ownership and ethnic fractionalisation

The roots of the land ownership in Mauritius can be traced back to the French settlement in the 18th century. French settlers were promised land concessions, easily provided due to the absence of a native population. When Mauritius was ceded to the British in 1815, the latter inherited an island with an already-established and functioning economic group. Since the interest of the British was merely to control the island, they allowed the existing French population to retain their property and economic activities as well as conserve their language, religion and culture. Over the century, under the British rule, the island remained mostly a mono-crop economy monopolised by the Franco-Mauritian elite forming a sugar oligarchy. With the abolition of slavery in Mauritius in 1835, the slave-owners were given adequate compensations for the loss of their valuable "property". Since ex-slaves fled to the coastal areas to fend for themselves, it was crucial for the elite to obtain another source of supply of cheap labour to sustain their plantation activities. As a result, the British, being largely dependent on the revenue from taxation generated by the sugar plantation, provided support to the Franco-Mauritian elite by bringing indentured labourers from India. Hence, the shared interest of the Franco-Mauritian elite and British colonial power served to establish a strong strategic relationship between the two.

Given the unfavourable world prices for sugar, the Franco-Mauritian sugar barons resorted to the sale of less productive and fragmented land[32], mostly to Indo-Mauritians. This turn in the economic situation has allowed the latter to own and cultivate small plots of lands and thus acquire some economic and eventually political power. They were, however, not of serious threat to the hegemony of the elite until much later. In the 1930s, the rippling effect of the Great Depression on the Mauritian economy coupled with the dissatisfaction of the state of affairs on the island led to severe riots in 1937 and 1943. These came from the lower ranks of the society, in protest of their lack of access to the economic and political sphere. The latter, mostly small planters and labourers of Indian origins, set up against the big economic players- the sugar estate patrons. As a result, the British government could no longer turn a deaf ear to the plight of these groups and enacted a new Constitution giving more political rights to the erstwhile sidelined section of the population.

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[32] Morcellement de terres

The period from 1940s up to its independence has been a very crucial one in shaping the political sphere for the decades to come, due to the formation of different political groups and the establishment of universal suffrage. The empowerment of a larger part of the society led to rising movements which fought for the rights of workers and the non-whites and later, for independence. The divide among the non-white were not clear-cut to say the least; with a large majority of Indo-Mauritians fighting for independence and a large majority of other ethnicities going against this movement in fear of a post-independence Hindu domination. For the most part, political party formations and elections have thereafter been played on ethnic grounds.

Losing on political grounds, the Franco-Mauritian elite has nevertheless been able to apply defensive power to maintain a status quo and hence retain their economic relevance over the years (Salverda, 2010). With the quasi-clear division between the political elite and the economic one, the power of the two groups has varied depending on the state of their relationship. It can basically be boiled down to two distinct phases, wherein during electoral campaigns, there is a period of "white-bashing" by politicians opposed to a strategy of political neutrality from the side of the Franco-Mauritian community and a second phase of mutual support and collaboration after elections. In order to appease the masses, the richest groups occasionally supported government projects or associations of other communities. In recent years, the minority of Franco-Mauritians has been joined by an even smaller minority of Sino-Mauritians (representing around 1,5% of the population) who have fared well economically throughout the years.

The strategy of "playing safe" by the elite has meant that they have kept a low profile and avoided to engage in political competition with the other ethnicities of the island, leaving the political sphere to be dominated by a majority of Indo-Mauritians and a minority of other ethnicities. With the wave of movements engaged in the fight for their rights, the Indo-Mauritius, being the majority ethnic group on the island dominated the public sphere, taking up most of the civil service jobs. If there is one group which has been at a clear disadvantage throughout the Mauritian history having been debarred from both the economic and political arenas, it would undoubtedly be the Creole population who are mostly of African and Malagasy descents. The 'malaise Creole' is a term that was coined in 1993 to describe the deplorable conditions in which working-class Mauritians of African descent live in.

The very fact that Mauritius does not include ethnicity as a variable in its census on the pretext of it being an obstacle to a unified national identity, rings an alarm bell on the prevailing division along ethnic lines on the island. It might reflect the reality that some ugly truths are being swept under the carpet. In fact, the Truth and Justice Commission Mauritius 2012 Report, established with the aim of analysing the

situations of African descents in Mauritius has pointed towards the ongoing discrimination that this group faces. Gill (2012) As depicted in Figure 5.5, the last ethnic census dating back to the 70s, grouped the population in four main groups as in the Constitution, namely the Hindus (52%) and Muslims (16%) forming the Indo-Mauritians, the Sino-Mauritians (3%) and the General Population (29%). Quite ironically, the last group roughly comprised of people who did not clearly fit into the first three categories, hence grouping together both Creoles (estimations to account for 27% of the whole population), mostly slave-descendants and Franco-Mauritians (estimated at 2%), for the majority slave-owners descendants.

Figure 5.5: Ethnic composition in Mauritius
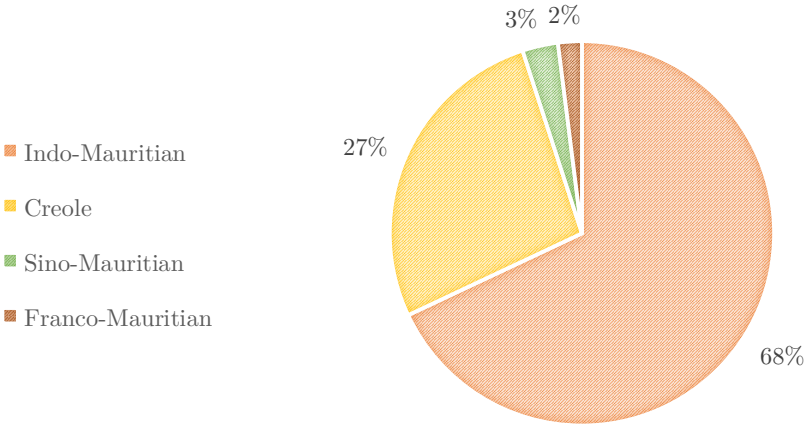
Source: Mauritius Population Census 1972

Given the ethnic divide in the island, the unwillingness of the successive governments to engage in a process of land-redistribution since colonial times has led to the perpetuating unequal distribution of land across the different ethnic groups on the island. This is not to say that every single person from the Franco-Mauritian elite does not face financial hardship but they are still relatively in better situations than those at the lower end of the distribution in the other communities. Hence, while the start at unequal footing may be pinned down as one of the factors of the formation of an elite group, its perpetuity lies in the status quo that has prevailed over the years, failing to bridge the gap between the different socio-economic and ethnic group in the island.

Integrated Resort Scheme (IRS) in 2001

To boost foreign investment, the IRS was put in place by the Mauritian government to attract wealthy foreigners to invest in real estate and buy residential properties, mostly in the form of luxurious villas with outstanding natural landscape and golf

courses. It has allowed the Franco-Mauritian elite to retain their economic power by converting their agricultural land into luxurious resort under the IRS. While being open to the population at large, the IRS benefitted mostly the large landowners, namely the large sugarcane companies. Following protests from other groups of the society, the Real Estate Scheme (RES), which is similar to the IRS without a minimum sales price, was put in place in 2007. It allows smaller landowners also to convert their lands. The combined scheme is known as the Property Development Scheme (PDS).

Fiscal Paradise

For long, Mauritius has put a lot of effort in attracting foreign investment to boost its economy. It has attempted to achieve so through the implementation of various fiscal reforms. Given its good diplomatic ties to various countries, Mauritius has been able to conclude 43 tax treaties, with 30 additional ones in line for approval. Combined with this, the government has extensively simplified its taxation system to incorporate a flat income tax rate as well as corporate tax rate at 15%. In addition to this, the government does not impose any inheritance or capital gains tax as is usually the case in similar upper-middle and upper income countries. This fiscal framework has often earned Mauritius the name of a fiscal paradise and has been subject to various debates. The Double Taxation Avoidance Agreement (DTAA) with India in effect since 1982 has been particularly met with major opposition since a third of India's foreign investment were coming from Mauritius, a country having a population equal to 0.1% of that of India. This has led to a repeal of this agreement in 2016. Despite the effort to shrug off the fiscal paradise tag, Mauritius is repeatedly associated to this category due to its low level of taxation. It has for long been criticized by the international community on this ground.

5.1.3   Comparative Analysis: La Réunion & Mauritius

Given their historical and economic background, we attempt to analyse the differences between the trends in inequality observed in these two neighbouring islands[33]. Looking at Figure 5.6 (a), we realise that the top 10% shares are substantially higher in La Réunion compared to Mauritius. In Mauritius, this share is stable at around 14- 15% from 1987 to 2000 and thereafter jumps to 19% in 2008. It is to be noted that level of the top 10% share in Mauritius is very low according to the WID standard and is comparable to the levels in Scandinavian countries. Given this low level of top income shares in Mauritius, even the steady decrease in the top 10% shares from the mid-1980s to 2000 in La Réunion has not been able to bridge the gap between the two. In fact, at its smallest point, the difference between the two is around 20 percentage points.

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[33] Differences in taxation system may make the two series not perfectly comparable. Nevertheless, it provides an approximation of the relationship in inequality in La Réunion and Mauritius.

Figure 5.6 (a): Top 10% share in La Réunion and Mauritius
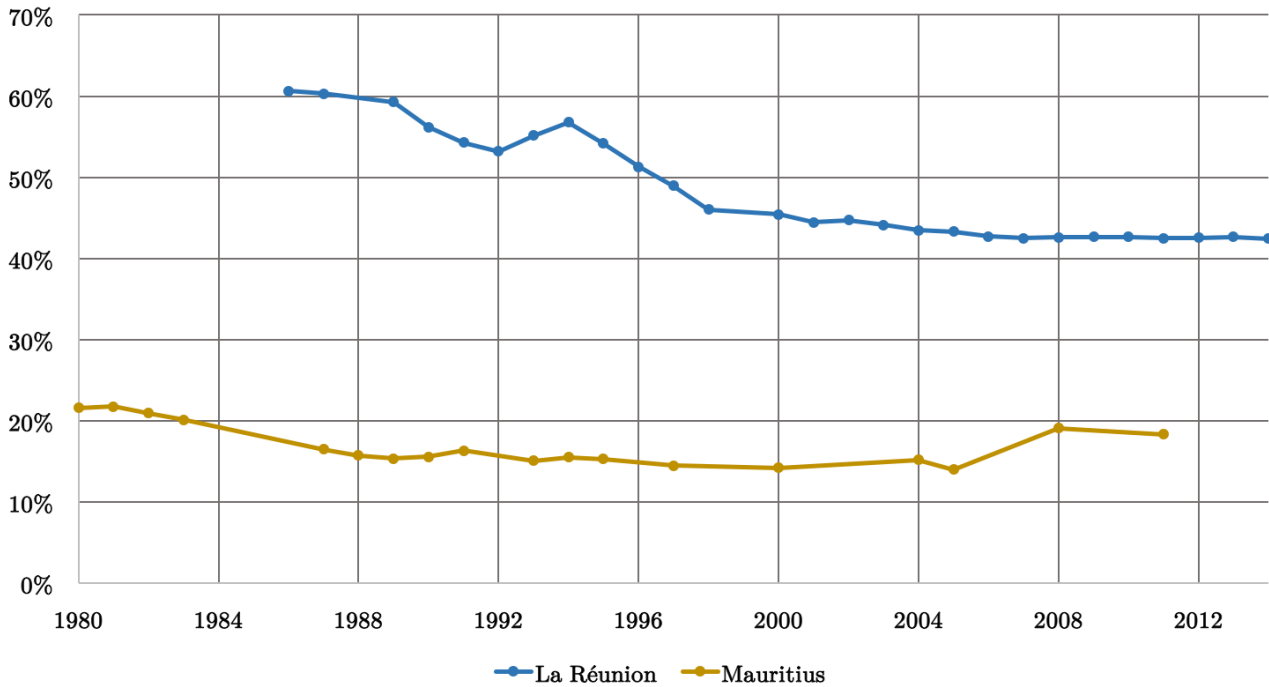
Source: Author's computation for La Réunion (see Appendix) and Atkinson (2011) for Mauritius

However, at the very top of the distribution, the gap between the two is less pronounced. Figure 5.6 (b) shows the top 1% shares in La Réunion compared to Mauritius. From 1986 to 2005, there is a major difference between the two, with top 1% having around 15% in La Réunion compared to a low level of 5% in Mauritius. However, due to an almost stable and later increasing trend in Mauritius, the decreasing trend in the top 1% shares in La Réunion has helped in narrowing down this gap. This is especially so after 2000, when Mauritius witnesses an increase in its top 1% share.

Figure 5.6 (b): Top 1% share in La Réunion and Mauritius

The changes in the inequality level in the recent years in Mauritius is quite alarming and if this trend is sustained, it might lead to a substantial deterioration of the economic divide in the island. This increasing trend can be possibly attributed to various factors. First, in a bid to facilitate business, attract foreign investment and respond to the general global tax competition, the Mauritian government has largely simplified its tax system, adopting a flat income tax rate in 2007. The purpose of this shift in the tax system has been claimed to be a way to broaden the tax base, improve compliance and facilitate administration.

Moreover, as explained in section 5.1.2, the implementation of the IRS might have contributed in attracting richer foreigners to invest in real estate driven by the possibility of earning the Mauritian citizenship. This framework does not only lead to a segregated society with an elite on one side and the rest of the population on the other, but it also mechanically increases the gap between the rich and the poor. In fact, Afrasia (2017) in the Africa Wealth Report has estimated a growth of 230% in the number of millionaires[34] between 2006 and 2016 due to various factors. Migration of a large number of wealthy individuals, particularly from France and South Africa is deemed to be one of the major factors. They estimate that around 280 millionaires

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[34] These are individuals with net assets of US$1 million or more

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have moved from South Africa to Mauritius since 2006, attributing it to the IRS which offers an automatic permanent residence, the low income and corporate tax rates. This might also be driven by the absence of inheritance and capital gains tax which is particularly appealing to businessmen and retirees.

A possible explanation for the difference observed between Mauritius and La Réunion could be in terms of differences in the elite formation and prevalence. Previous slave-owners and sugar barons in La Réunion have not faced major counter-powers throughout its history compared to the ones in Mauritius. The Franco-Mauritian elite's power have been kept in check first under the British rule and later by the opposing political power, explaining the discrepancy between the two. In fact, based on Figures 5.6 (a) and 5.6 (b), there seems to be a higher concentration of income in the top 1% rather than the top 10% in Mauritius and the contrary in La Réunion suggesting that there are a few very rich individuals in Mauritius. It is in line with the hypothesis of the presence of an elite in Mauritius, which earn a much higher income than average but are so few in absolute numbers that they are not clearly seen in the data and hence, might not substantially drive the results. On the contrary, in La Réunion, there might be the co-existence of a small elite and well-paid civil servants earning much more that the rest of the population. Moreover, the difference in unemployment rate in the two islands is very significant, with an average unemployment rates of 35% in La Réunion compared to an average of 6% in Mauritius since the 1990s. This is an explanation for the very low share of the bottom 50% in La Réunion as seen in Figure 4.7.

5.2   La Réunion & Other socially divided societies

An interesting feature of the island is in terms of the mix of its population. While this ethnically diverse society does exist in Mauritius as well, it seems that it has been particularly detrimental to only part of the society. The African descendants remained at a disadvantage while the rest of the population- more specifically the Franco, Sino and Indo-Mauritians fared relatively well, each group through a different channel, hence leading to low levels of inequality. On the contrary, the ethnic diversity in La Réunion seems to be more pronounced with a line broadly drawn between the ex-settlers' descendants together with the civil servants (mostly from metropolitan France) and the rest of the population, perhaps explaining the extremely high level of top income shares, especially in 1960. Hence, the level of inequality in La Réunion seems to reflect the situations that normally prevail in highly ethnically-divided societies. We hence compare La Réunion to the South African case. Exploiting tax data reported by ethnic groups in South Africa, Alvaredo and Atkinson (2010) find that there is high concentration of Whites in the top income shares with 97.5% White in the top 0.1% in 1987. However, such an analysis cannot be replicated in the context of La Réunion given that it is subject to the colour-blind policy that exists in France.

Despite the divide during the apartheid period in South Africa, the dominating group were ruling a relatively poor country explaining why they could not extract a much higher share of income. However, in recent years, the growth in the South African economy has enabled the economically-powerful few to obtain a higher share of total income. In fact, the top income shares we observe in La Réunion in the mid-1980s is comparable to the current levels prevailing in South Africa. Hence, while growth has benefited more the middle and bottom group in La Réunion, leading to a decline in its top income shares, it had the reverse effect in South Africa. It is interesting to note that the top 1% shares in La Réunion in 1960 is even higher than what we observe for South Africa throughout the period.

Figure 5.7: Top income shares in La Réunion and South Africa
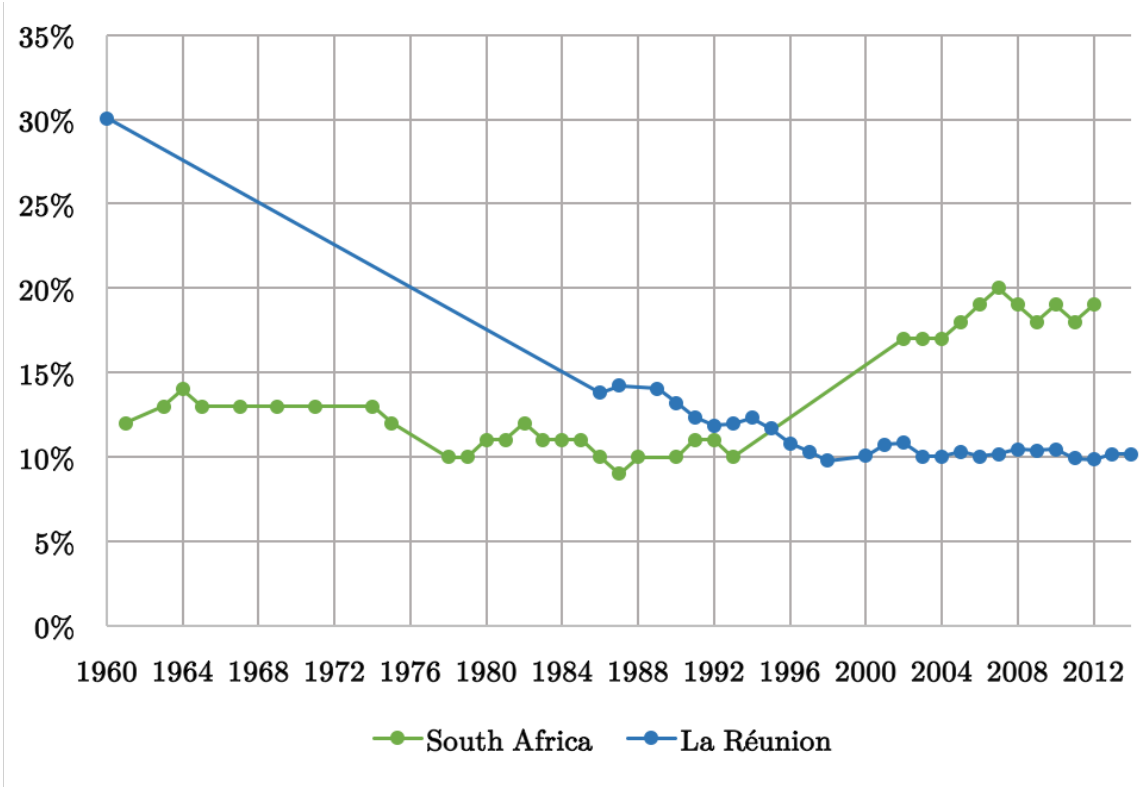
Source: Own estimations for La Réunion and Alvaredo and Atkinson (2010)

It is even more interesting to compare La Réunion with other former French colonies which exhibit similar ethnic divides. Alvaredo et al. (2016) observes the top income shares in French Algeria, Cameroon, Indochina and Tunisia during the period of 1920 – 1960. Much emphasis is laid on the racial and economic divide between the settlers of metropolitan descendants making the bulk of the top-income earners and the autochthon and slave population at the bottom of the distribution. In fact, comparable to La Réunion in 1960, Algeria had a top 1% share of 30% in the 1930s, during its colonial period. This implies that more than a decade after its departmentalisation, La Réunion was witnessing an inequality level comparable to colonial times in Algeria. It

also lays down an interesting comparison whereby in South Africa, the economically powerful group were integrated in South Africa for a much longer period of time while in Algeria, there was a colonial relationship between the top and bottom groups. The situation in La Réunion in 1960 can be placed in between the two extremes. It certainly had the colonial aspect of extraction, even after its departmentalisation but nevertheless it had a powerful economic elite which was present on the island for generations.

6 Way Forward

The results presented in this analysis are subject to changes, especially after refining the corrections made and with the availability of more precise long-term estimates of total income for La Réunion. Nevertheless, they provide insights on the level of inequality prevailing in La Réunion. Assessing the role of civil servants' wages in explaining top income shares will require more detailed data on the wages paid to different categories of workers in La Réunion since the mid-20th century.

Going further, this analysis could explore the link between inequality and demography. Despite being part of France, La Réunion has very interesting demographic specificities on various fronts. Hence, linking the demographic factors of La Réunion to its observed level of inequality may allow us to better understand the mechanism underlying the trends in the top income shares. First, looking at the geographical concentration of different income groups could be an interesting extension of this paper. The island is characterised by pockets of poverty in specific areas based on its historical and colonial legacy. Second, in exploring the channel of public wages, it would be interesting to analyse the group of people who benefit the most from it. Cogneau and Dumont (2000) argues that the demographic structure of public employment in La Réunion might play a role in widening the gap between the expatriate households, the local qualified ones and the local non-qualified households.

These results also bring forward the discussion about the prevalence of an ethnic divide in La Réunion and its role in driving income inequality. Further research could look into the case of Mauritius and La Réunion since the ethnic fractionalisation is expected to map a pattern of income inequality. It has been established in related sociological and anthropological literature than African descendants are still today at the bottom of the distribution and the colonisers' descendants at the very top of the distribution in these islands. The perpetuity of inequality that this divide entails may shed more light on the difference between the top income shares in Mauritius and La Réunion.

While we have spoken lengthily about income inequality, it should be reminded that a study of wealth inequality is in order to better grasp the situation prevailing in the island. This is especially the case for Mauritius due to the implementation of various asset and investment schemes and taxation reforms to attract wealthy foreigners, some of whom relocate in Mauritius. Hence, a comparative analysis in terms of wealth inequality could allow us to complement the current analysis and capture a more complete picture.

The dynamics of wealth inequality might also shed more light on the colonial legacy in the two islands since there has been little or no land redistribution and hence properties

acquired during colonial times have been passed over from one generation to the next, often creating dynasties. This raises the question of inter-generational income and wealth mobility. In addition to this, both being considered to be prized retirement destinations for its sandy beaches and fiscal advantages, La Réunion and Mauritius is increasingly receiving rich foreigners who invest and settle on the island in their old age.

Furthermore, in this paper, we have focused on La Réunion, one of the five overseas departments (DOM) of France. It would be particularly interesting to extend this analysis to the other overseas departments, namely Guadeloupe, Martinique, Guiana and Mayotte to see the different impact of the same colonial power in different settings. In fact, Martinique ranks third in terms of the departments with the highest inequality based on the Gini coefficient. A second equally interesting extension could be to explore demographic structures that are at play in these different territories and understand their links to inequality. With the high rates of internal migration between the overseas departments and metropolitan France, the former witness a highly dynamic demographic profile.

In fact, the high unemployment rates that prevails on these territories might be a driving factor for this movement. As a result, the poorer section would migrate in an attempt to improve their economic conditions, very often ending up in low-paid jobs in metropolitan France. On the other hand, the relatively well-off and more qualified who move to the mainland aim to acquire higher qualifications and better professional experiences. Hence, upon their return to their native overseas department, if they do return, they have higher chances of being employed in better positions compared to their counterparts who never left (Temporal, 2011). This puts the latter, who are often from the worse socioeconomic background, at a significant disadvantage, perpetuating the cycle of inequality. Moreover, as is known in the literature on migration, cost of migration imply that richer and more skilled people are more likely to migrate than their poorer and low-skilled counterparts. However, the income threshold to migrate might be lower in the case of La Réunion due to the deep link with metropolitan France.

7 Conclusion

Despite being part of the same country, La Réunion has few in common with metropolitan France, except for the language and the administration. Marked by decades of high unemployment rate and low proportion of qualified people, La Réunion has faced a challenging task in bridging the gap between the richest and poorest. Using tabulated income tax data published since the 1960s, I have estimated the distribution of income in La Réunion and computed the shares of income accruing to the richest. The results show that income inequality has been extremely high since 1960. Thereafter, the top income shares have witnessed a significant drop throughout the end of the 20th century, stabilising as from the 2000s. However, despite this declining trend in inequality, it has for the most part been higher than in metropolitan France.

In an attempt to explain the discrepancy between the trends observed in La Réunion and France, we explore the possible explanation that high wages of civil servants topped up with a premium might be a driving factor of the top income shares. This is coupled with a high level of unemployment rate and a minimum wage standing at lower rates than in metropolitan France, explaining the high level of top income shares in La Réunion. It seems that over the years, this factor has played a less important role given the rapid growth of the economy and the implementation of social policies targeted to reduce inequality in La Réunion. The catch-up process with metropolitan France has allowed for a reduction in the perceived level of inequality which is even more crucial in an ethnically diverse society to preserve its social cohesion. Yet, despite the effort for more equality, we still observe a persistently higher level of income inequality in La Réunion than in France in the recent decade.

We also put these results in an international perspective. We provide an extensive analysis of the Mauritian history and economy and conduct a comparison with La Réunion in terms of their top income shares given their geographical, cultural and historical proximity. While Mauritius has a much lower level of top income shares throughout the period, the gap between the two islands seems to narrow down in the recent years. Since both series do not go back to the colonial period, the period of analysis only provides an insight into the situation prevailing in the two islands post-departmentalisation in one case and post-independence in the other. Based on this, we explore the hypothesis of a different colonial legacy between the two, with the elite in La Réunion not facing major opposition compared to the one in Mauritius which dealt with a British administration and an Indo-Mauritian political power. We speculate that this historical turn could explain part of the fact that there is a higher concentration of income at the top in La Réunion than in Mauritius. To obtain more insight, we also compare the results with other ethnically divided societies and find

that our results are comparable to the South African experience during the apartheid period and in recent years. It is also true for Algeria during its colonial period.

Further research should delve deeper in the channels that could lead to the observed levels of inequality, without sidelining the demographic aspect of it. First, we will focus on an individualised unit of observation rather than the tax unit to disentangle the effect of differences in demographic characteristics when comparing the level of top income shares between La Réunion and other territories. Second, we hope to further investigate the role of the public-private employment structure in La Réunion in explaining the top income shares. Third, this project has laid ground for future work analysing the link between inequality and demographic phenomena specific to La Réunion, such as migration to metropolitan France and the ethnic-divide.

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Appendix

A. Tabulated Income Tax Data

The income tax data at the departmental level for La Réunion from 1960 to 2014 has been obtained from various sources, namely the *Direction Générale des Impôts* (DGI), the *Etats 1921* obtained from the *Centre des Archives d'Economiques et Financières* (CAEF), the *Archives des Données Issues de La Statistique Publique* (ADISP), the Réseau Quêtelet and the *Direction Générals des Finances Publiques* (DGFIP).

Table A1: Sources of Income Tax Data for La Réunion (1960 − 2014)

Year	Sources
	Rendu Des Lois Relatives Aux Impots Sur Le Revenus (No 2371)- DGI
	Situation au 31/12/n+1
1960	INSEE- L'Economie de La Réunion- Panorama
	Situation au 31/12/n+2
1986	Etats 1921, situation au 31/12/n+2, Tableau IIA
1987	Etats 1921, situation au 31/12/n+2, Tableau IIA
1989	Etats 1921, situation au 31/12/n+2, Tableau IIA
1990	Etats 1921, situation au 31/12/n+2, Tableau IIA
1991	Etats 1921, situation au 31/12/n+2, Tableau IIA
1992	Etats 1921, situation au 31/12/n+2, Tableau IIA
1993	Etats 1921, situation au 31/12/n+2, Tableau IIA
1994	Etats 1921, situation au 31/12/n+2, Tableau IIA
1995	Etats 1921, situation au 31/12/n+2, Tableau IIA
1996	Etats 1921, situation au 31/12/n+2, Tableau IIA
1997	Etats 1921, situation au 31/12/n+2, Tableau IIA
1998	Etats 1921, situation au 31/12/n+2, Tableau IIA
2000	ADISP- Bureau GF-3C, Réseau Quêtelet
2001	ADISP- Bureau GF-3C, Réseau Quêtelet
2002	ADISP- Bureau GF-3C, Réseau Quêtelet
2003	DGFiP, impots.gouv.fr
2004	DGFiP, impots.gouv.fr
2005	DGFiP, impots.gouv.fr
2006	DGFiP, impots.gouv.fr
2007	DGFiP, impots.gouv.fr
2008	DGFiP, impots.gouv.fr
2009	DGFiP, impots.gouv.fr
2010	DGFiP, impots.gouv.fr
2011	DGFiP, impots.gouv.fr
2012	DGFiP, impots.gouv.fr
2013	DGFiP, impots.gouv.fr
2014	DGFiP, impots.gouv.fr

The publication of the income tax data normally happens at two points in time, namely at 31/12/n+1 and 31/12/n+2. In the second case, the administration takes into account any payments or mistakes that has not been accounted for in the first version. Hence, the data at 31/12/n+2 represents the most updated form of the tax data and we attempt to use this whenever it is possible. For the year 1960, we have been able to obtain the complete tabulated income tax data for the situation at 31/12/n+1. Moreover, we have retrieved a partial tabulation data for 1960 at 31/12/n+2 from INSEE publications. However, the latter only reports the number of taxable tax units per income range. In order for the estimates of 1960 to reflect the actuall situation, there is a need to account for 394 additional individuals who appear in n+2 but not in n+1. 85% of these individuals belong to the lowest thresholds. However, in the results presented in this paper, we did not attempt to correct for this and hence the top 1% for 1960 is subject to change.

As for the data available online on the website of the DGFiP, the revenue for the year n is published under the name "L'impôt sur le revenus n+1" as from 1999. This has in effect led to a missing year *L'impôts sur le revenu 1999* which was instead called *L'impôts sur le revenue 2000.* For instance, *L'impôts sur le revenu 2004* is indeed the situation at 31/12/n+2 but refers to revenue earned in 2003. The last publication by the DGFiP at the time of writing of this paper concerned the revenue earned in 2014. The data for 2015 should be available in the near future.

The tabulated income tax data consists of the number of taxable tax units and their income by income ranges. Table A2 provides an example of the raw tax data for the year 2002

Table A2: Tabulated Income Tax for the year 2002

Income Range (€)	Number of tax units	Taxable Income
Less than 9 000	236 565	708 162 206
9 000 - 12 000	30 833	317 536 853
12 000 - 19 000	33 692	509 106 078
19 000 - 31 000	29 192	705 364 890
31 000 - 78 000	24 286	1 102 505 958
More than 78 000	3 336	453 625 000
Total	357 904	3 796 300 985

Source: DGFiP

The number of tax units presented in this table represents both the taxable and non-taxable tax units. The tax administration has starting reporting data for both taxable

and non-taxable tax units from 1985 onwards. Prior to that, only the number of taxable tax units and their corresponding income were reported in the tax data. Moreover, based on Figure 3.2, it is assumed that it became mandatory for all tax units to fill a tax form, thereby declaring their income as from 2001. There is thus a need to estimate the total number of tax units for the years prior to 2001.

B. Control Total for Population

The data for population is obtained from various INSEE publications, namely *L'économie de La Réunion- Panorama* (1985 – 1991) and *Tableau Economique de La Réunion* (1992 – 2014). These INSEE data are based on the various rounds of the population censuses. The years for which each of the variable of interest is observed is detailed in Table B.1.

Table B.1: Sources for Population Data

Variable	Years	Source
Total Population Adult Population	1954, 1961, 1967, 1974, 1977-1982, 1986-2014	INSEE- based on various Population Census
Number of married couples	1954, 1961, 1967, 1974, 1982, 2006-2014	INSEE- based on various Population Census
Number of household	1954, 1961, 1967, 1974, 1982, 1994, 1997, 1999, 2006, 2008, 2010, 2013	INSEE- based on various Population Census

In order to obtain an uninterrupted total and adult population series from 1954 to 2014, the data is linearly interpolated for the years in between. The ratio between the number of married couples and the adult population is then estimated for the years for which we have the data for the number of married couples. This is then linearly interpolated to fill in the years in between and multiplied by the adult population to obtain a complete series for the number of married couples. In effect, from table B.2, column (2)=(3)*(1).

These data are then used to estimate a control total for population for the years 1986 – 2014, which is the total number of tax units which would have been observed if all the tax units were required to fill a form. Since in the French tax system, married or PACsed couples fill a unique form, an estimation of the number of tax units is constructed as the difference between the adult population, defined as individuals above 20 years old and the number of couples. From table B.2, column (4) which is the estimated control total for population is equal to (1) – (2). Column (5) gives the total number of tax units (taxable and non-taxable) declared in the tax data. Column (6) is the estimated proportion of declared tax units which (5)/(4). It can be seen that as

from 2001, this proportion is close to 100%, hence leading to our assumption that all tax units were required to declare their income as from 2001 in La Réunion. Column (7) reports the total number of tax units that is assumed in this paper. From 1954 to 1998, it is equal to the estimated control total for population (col 4). From 2001 to 2014, it is the total number of tax units obtained from the tax data. The years 1999 and 2000 are interpolated to smooth out the estimation from one source to another.

Table B.2: Population data and Estimation of total number of tax units

Year	Adult Population (1)	Number of married Couples (2)	Ratio (No of married couple/ Adult Population) (3)	Estimated Total number of Tax Units (4)	Number of declared tax units (5)	Estimated proportion of declared tax units (6)=(5)/(4)	Total Number of Tax Units (7)
1954	126 210	36 500	0,29	89 710			89 710
1955	131 127	37 822	0,29	93 304			93 304
1956	136 044	39 137	0,29	96 906			96 906
1957	140 960	40 445	0,29	100 515			100 515
1958	145 877	41 745	0,29	104 132			104 132
1959	150 794	43 037	0,29	107 756			107 756
1960	155 710	44 322	0,28	111 388			111 388
1961	160 627	45 600	0,28	115 027			115 027
1962	164 248	46 978	0,29	117 270			117 270
1963	167 869	48 372	0,29	119 497			119 497
1964	171 490	49 781	0,29	121 709			121 709
1965	175 110	51 205	0,29	123 905			123 905
1966	178 731	52 645	0,29	126 086			126 086
1967	182 352	54 100	0,30	128 252			128 252
1968	187 537	54 919	0,29	132 618			132 618
1969	192 723	55 699	0,29	137 024			137 024
1970	197 908	56 439	0,29	141 469			141 469
1971	203 093	57 139	0,28	145 955			145 955
1972	208 278	57 799	0,28	150 480			150 480
1973	213 464	58 419	0,27	155 044			155 044
1974	218 649	59 000	0,27	159 649			159 649
1975	222 286	59 878	0,27	162 408			162 408
1976	225 923	60 752	0,27	165 171			165 171
1977	229 560	61 623	0,27	167 937			167 937
1978	235 243	63 038	0,27	172 205			172 205
1979	240 114	64 232	0,27	175 882			175 882
1980	244 352	65 251	0,27	179 101			179 101
1981	252 202	67 230	0,27	184 972			184 972

1982	271 698	72 300	0,27	199398			199 398
1983	279 206	73 691	0,26	205 515			205 515
1984	286 714	75 050	0,26	211 664			211 664
1985	294 222	76 376	0,26	217 846			217 846
1986	301 730	77 669	0,26	224 061	65 470	29,2%	224 061
1987	313 240	79 951	0,26	233 289	72 942	31,3%	233 289
1988	324 750	82 183	0,25	242 567	83 772	34,5%	242 567
1989	334 250	83 861	0,25	250 389	94 601	37,8%	250 389
1990	345 767	85 999	0,25	259 768	115 877	42,9%	259 768
1991	357 284	88 087	0,25	269 197	127 758	47,5%	269 197
1992	367 277	89 753	0,24	277 524	142 486	51,3%	277 524
1993	377 659	91 469	0,24	286 190	170 839	59,7%	286 190
1994	387 896	93 106	0,24	294 790	189 019	64,1%	294 790
1995	398 475	94 779	0,24	303 696	208 289	68,6%	303 696
1996	409 080	96 413	0,24	312 667	237 884	76,1%	312 667
1997	418 887	97 814	0,23	321 073	260 121	81,0%	321 073
1998	429 001	99 243	0,23	329 758	280 034	84,9%	329 758
1999	438 450	100 477	0,23	337 973	302 391	89,5%	333 385
2000	449 215	101 967	0,23	347 248	324 748	93,5%	337 013
2001	459 401	103 281	0,22	356 120	340 641	95,7%	340 641
2002	468 652	104 343	0,22	364 309	357 904	98,2%	357 904
2003	477 735	105 327	0,22	372 408	372 409	100,0%	372 409
2004	487 041	106 320	0,22	380 721	385 233	101,2%	385 233
2005	497 497	107 521	0,22	389 976	394 963	101,3%	394 963
2006	505 997	108 259	0,21	397 738	406 899	102,3%	406 899
2007	515 917	109 288	0,21	406 629	418 180	102,8%	418 180
2008	528 186	110 481	0,21	417 705	429 514	102,8%	429 514
2009	536 779	110 150	0,21	426 629	435 180	102,0%	435 180
2010	542 938	110 130	0,20	432 808	449 071	103,8%	449 071
2011	553 642	110 807	0,20	442 835	448 755	101,3%	448 755
2012	561 808	110 902	0,20	450 906	458 078	101,6%	458 078
2013	566 375	109 595	0,19	456 780	468 201	102,5%	468 201
2014	572 962				478 291		478 291

In order to grasp the demographic aspect of La Réunion and the evolution of proportion of taxable tax units over time, we may refer to Table B.3. Column 1 provides the number of taxable units as reported in the tabulated tax data. For the years prior to 1986, this data is obtained from various INSEE publications, namely *l'Economie de La Réunion- Panorama* and *Tableau Economique de La Réunion* for which only the total number of taxable tax unit per income ranges are available. Column (2) of Table B.2 provides an estimate of the proportion of taxable tax units by dividing the number of taxable tax units by the total number of tax units (Col. 7 of Table B.2). Column (3)

is the number of household as obtained from INSEE publications for the years mentioned in Table B.1. The data is linearly interpolated for the years in between to obtain an uninterrupted series for the number of household. The ratio of tax units per household is estimated in column (4)=(col 7 of Table B.2)/col(3). Column (5) is taken from the estimations of Garbinti et al., (2017). Column (6) and (7) reports the total population of La Réunion and France respectively. The last column estimates La Réunion's population as a proportion of France's population.

Table B.3: Evolution of proportion of taxable units and demographic dynamics

Number of taxable tax units (1)	Estimated proportion of taxable tax units (2)	Number of household (3)	Ratio Tax Units per household (Réunion) (4)	Ratio Tax unit per household (France) (5)	Total Population La Réunion (6)	Total Population France (7)	Réunion Population as % Total Population of France (8)
2 124	2,5%			1,28	262 122	42 661	0,61%
2 641	3,0%			1,28	266 205	42 967	0,62%
2 811	3,2%			1,28	270 287	43 300	0,62%
2 836	3,2%	62 764	1,43	1,28	274 370	43 582	0,63%
3 381	3,6%	64 387	1,45	1,28	285 072	43 942	0,65%
3 874	4,0%	66 011	1,47	1,28	295 773	44 359	0,67%
4 341	4,3%	67 634	1,49	1,28	306 475	44 809	0,68%
4 619	4,4%	69 258	1,50	1,28	317 177	45 334	0,70%
4 588	4,3%	70 881	1,52	1,28	327 879	45 805	0,72%
5 412	4,9%	72 505	1,54	1,28	338 580	46 275	0,73%
5 884	5,1%	74 128	1,55	1,28	349 282	46 733	0,75%
6 824	5,8%	75 566	1,55	1,28	360 489	47 273	0,76%
8 540	7,1%	77 004	1,55	1,28	371 696	48 458	0,77%
8 842	7,3%	78 442	1,55	1,28	382 904	48 965	0,78%
9 803	7,9%	79 879	1,55	1,28	394 111	49 490	0,80%
10 483	8,3%	81 317	1,55	1,28	405 318	49 902	0,81%
11 798	9,2%	82 755	1,55	1,27	416 525	50 343	0,83%
12 859	9,7%	85 785	1,55	1,27	416 525	50 712	0,82%
13 372	9,8%	88 814	1,54	1,27	426 550	51 117	0,83%
14 576	10,3%	91 844	1,54	1,26	436 575	51 559	0,85%
15 193	10,4%	94 873	1,54	1,26	446 600	52 071	0,86%
16 824	11,2%	97 903	1,54	1,26	456 625	52 564	0,87%
18 907	12,2%	100 932	1,54	1,25	466 650	53 017	0,88%
20 989	13,1%	103 962	1,54	1,24	476 675	53 444	0,89%
23 072	14,2%	106 077	1,53	1,24	476 675	53 744	0,89%
26 203	15,9%	108 192	1,53	1,23	483 206	53 961	0,90%
27 741	16,5%	110 307	1,52	1,22	489 737	54 200	0,90%
31 039	18,0%	112 423	1,53	1,22	495 122	54 473	0,91%

32 903	18,7%	114 538	1,54	1,21	499 930	54 701	0,91%
33 409	18,7%	116 653	1,54	1,21	505 321	54 972	0,92%
34 503	18,7%	118 768	1,56	1,21	510 316	55 290	0,92%
36 392	18,3%	120 883	1,58	1,20	515 814	55 619	0,93%
38 153	18,6%	127 579	1,61	1,20	524 486	55 956	0,94%
38 775	18,3%	132 200	1,60	1,20	533 157	56 221	0,95%
38 491	17,7%	136 821	1,59	1,20	541 829	56 505	0,96%
34 671	15,5%	141 442	1,58	1,21	550 500	56 780	0,97%
34 666	14,9%	146 064	1,60	1,24	560 000	57 072	0,98%
35 009	14,4%	150 685	1,61	1,24	569 600	57 379	0,99%
36 483	14,6%	155 306	1,61	1,26	578 500	57 705	1,00%
38 904	15,0%	159 927	1,62	1,27	597 828	58 035	1,03%
41 944	15,6%	164 549	1,64	1,28	607 837	58 321	1,04%
43 714	15,8%	171 244	1,62	1,29	620 333	58 613	1,06%
45 882	16,0%	177 940	1,61	1,29	633 030	58 895	1,07%
48 024	16,3%	184 635	1,60	1,30	645 093	59 113	1,09%
51 119	16,8%	191 090	1,59	1,31	657 162	59 324	1,11%
51 978	16,6%	197 545	1,58	1,31	668 915	59 532	1,12%
56 159	17,5%	204 000	1,57	1,32	680 185	59 737	1,14%
65 292	19,8%	209 522	1,57	1,32	692 184	59 945	1,15%
68 114	20,4%	215 044	1,57	1,33	703 820	60 167	1,17%
70 935	21,0%	221 651	1,57	1,33	716 314	60 545	1,18%
72 698	21,3%	228 258	1,56	1,33	729 010	60 970	1,20%
77 475	21,6%	234 865	1,55	1,33	740 207	61 406	1,21%
82 940	22,3%	241 473	1,54	1,33	750 840	61 838	1,21%
89 662	23,3%	248 080	1,53	1,33	761 630	62 258	1,22%
104 398	26,4%	254 687	1,53	1,32	772 907	62 634	1,23%
106 214	26,1%	261 294	1,52	1,33	781 962	62 995	1,24%
115 697	27,7%	269 477	1,51	1,33	794 107	63 387	1,25%
114 541	26,7%	277 659	1,50	1,33	808 250	63 723	1,27%
117 877	27,1%	283 930	1,50	1,32	816 364	64 049	1,27%
121 154	27,0%	290 200	1,49	1,32	821 136	64 325	1,28%
127 275	28,4%	295 701	1,50	1,29	828 581	64 986	1,28%
115 023	25,1%	301 203	1,50	1,29	833 944	65 294	1,28%
113 960	24,3%	306 704	1,49	1,29	835 103	65 736	1,27%
103 287	21,6%			1,30	842 767	66 146	1,27%

Figure B.1 shows the evolution of the number of households and the number of tax units in La Réunion from 1954 to 2014.

Figure B.1: Demographic Evolution of number of households and tax units in La Réunion
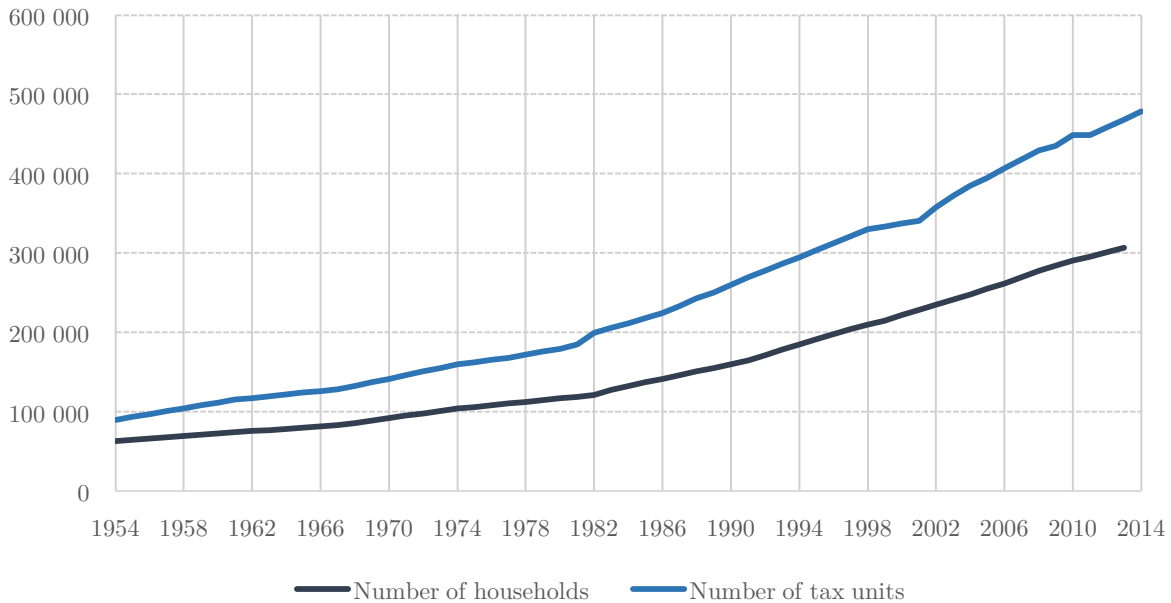
Source: INSEE (Population Census) and DGFiP

C. Control Total for Income

The first step is to estimate a long term series of GDP for La Réunion. While for the recent years (2000 – 2014) the National Accounts disaggregated at the overseas departmental level is available from INSEE, the series for the years prior to that is less straight forward. We are able to obtain this data for the years 1973 to 1994 from various INSEE publications (See Table C.1) and we take the most updated series to obtain the most homogenous series as possible. The challenge lies in estimating the GDP for the years prior to 1973. Since there is no source of data at the level of La Réunion, as a first approximation, we are forced to rely on the national GDP series of France to be able to deduce the level of GDP of La Réunion. It is known that the two territories have different demographic dynamics at the same given point in time. Hence, in order for our GDP estimates not to have the spurious effect of differences in growth rate, we look only at GDP per capita.

Table C.1: Sources of GDP for La Réunion

Year	Sources
1973 - 1985	INSEE - Annuaire Statistique de La France
1986 - 1992	INSEE - L'économie de La Réunion- Panorama
1993 - 2000	INSEE - Tableau Economique de La Réunion
2001 - 2014	INSEE – www.insee.fr

We thus proceed to compare the GDP per capita for France series obtained from Garbinti et al., (2017) to the GDP per capita for La Réunion computed before. This proportion has steadily increased from around 30% in 1973 to around 65% in 2014 (column 5 of Table C.2). Given the trends that we observe, it is very likely that a linearly interpolation of this proportion between the years 1995 to 1999 gives a good approximation. For the years prior to 1973, we assume two scenarios. In column 5a, we assume that this proportion has grown at a constant rate of 1,96%, which is its average growth rate for the years 1973-1980. This yields an estimate for the GDP per capita of La Réunion at 23.6% of that of France in 1960, painting a very gloomy picture of the island in that period compared to its mainland. We choose to look at a more optimistic scenario, in column 5b, which would be that the proportion between the GDP per capita of La Réunion and the GDP per capita of France has remained constant between 1960 and 1973, thus keeping a constant of 30.3% during those years.

Based on these estimates, the GDP per capita of La Réunion is estimated by multiplying this ratio by the GDP per capita of France which is then multiplied by the population of La Réunion to obtain the GDP series for La Réunion. In other words, column 2(a)= 5(a)*(4), 2(b)=5(b)*(4) and column 1(a)=2(a)*total population of La Réunion and conversely column 1(b)=2(b)*total population of La Réunion. Future work will need to have a more precise estimate of GDP for La Réunion as this is merely an approximation.

Table C.2: GDP estimates for La Réunion and France

Year	GDP_REU (in billion) (1a)	GDP_REU (in billion) (1b)	GDP per capita REU (2a)	GDP per capita REU (2b)	GDP_FRA (in billion) (3)	GDP per capita FRA (4)	Option1: Ratio GDP per capita REU/GDP per capita FRA (5a)	Option2: Ratio GDP per capita REU/GDP per capita FRA (5b)
1960	0,5	0,7	1 511	1 944	297	6 408	0,24	0,30
1961	0,6	0,7	1 664	2 100	323	6 921	0,24	0,30
1962	0,7	0,8	1 872	2 318	361	7 640	0,25	0,30
1963	0,8	0,9	2 088	2 535	405	8 355	0,25	0,30
1964	0,9	1,1	2 337	2 784	449	9 173	0,25	0,30
1965	1,0	1,2	2 538	2 965	483	9 769	0,26	0,30
1966	1,1	1,3	2 778	3 183	523	10 489	0,26	0,30
1967	1,3	1,4	3 033	3 408	565	11 231	0,27	0,30
1968	1,4	1,5	3 337	3 677	615	12 118	0,28	0,30
1969	1,6	1,8	3 849	4 160	701	13 707	0,28	0,30
1970	1,9	2,0	4 345	4 606	783	15 178	0,29	0,30
1971	2,0	2,1	4 448	4 624	794	15 239	0,29	0,30

1972	2,3	2,3	5 006	5 104	884	16 821	0,30	0,30
1973	3,0	3,0	6 467	6 467	1 130	21 311	0,30	0,30
1974	3,8	3,8	7 981	7 981	1 303	24 380	0,33	0,33
1975	4,5	4,5	9 522	9 522	1 468	27 313	0,35	0,35
1976	5,2	5,2	10 725	10 725	1 701	31 515	0,34	0,34
1977	5,9	5,9	11 957	11 957	1 918	35 384	0,34	0,34
1978	6,6	6,6	13 261	13 261	2 183	40 067	0,33	0,33
1979	7,4	7,4	14 867	14 867	2 481	45 357	0,33	0,33
1980	8,4	8,4	16 651	16 651	2 808	51 086	0,33	0,33
1981	10,1	10,1	19 780	19 780	3 165	57 240	0,35	0,35
1982	12,2	12,2	23 696	23 696	3 626	65 194	0,36	0,36
1983	13,6	13,6	25 938	25 938	4 006	71 601	0,36	0,36
1984	15,8	15,8	29 668	29 668	4 362	77 585	0,38	0,38
1985	17,3	17,3	31 964	31 964	4 700	83 181	0,38	0,38
1986	20,0	20,0	36 274	36 274	5 069	89 280	0,41	0,41
1987	21,5	21,5	38 385	38 385	5 337	93 507	0,41	0,41
1988	23,3	23,3	40 886	40 886	5 735	99 952	0,41	0,41
1989	25,6	25,6	44 275	44 275	6 160	106 744	0,41	0,41
1990	28,4	28,4	47 462	47 462	6 509	112 164	0,42	0,42
1991	31,3	31,3	51 558	51 558	6 776	116 192	0,44	0,44
1992	33,8	33,8	54 466	54 466	7 000	119 420	0,46	0,46
1993	33,7	33,7	53 253	53 253	7 077	120 165	0,44	0,44
1994	35,1	35,1	54 431	54 431	7 390	125 008	0,44	0,44
1995	38,6	38,6	58 719	58 719	7 662	129 161	0,45	0,45
1996	41,9	41,9	62 652	62 652	7 872	132 227	0,47	0,47
1997	45,7	45,7	67 158	67 158	8 137	136 216	0,49	0,49
1998	50,1	50,1	72 382	72 382	8 471	141 308	0,51	0,51
1999	8,6	8,6	12 245	12 245	1 386	23 042	0,53	0,53
2000	9,5	9,5	13 304	13 304	1 463	24 161	0,55	0,55
2001	10,2	10,2	14 046	14 046	1 520	24 937	0,56	0,56
2002	10,9	10,9	14 689	14 689	1 569	25 547	0,57	0,57
2003	11,5	11,5	15 345	15 345	1 610	26 041	0,59	0,59
2004	12,3	12,3	16 110	16 110	1 682	27 017	0,60	0,60
2005	13,1	13,1	16 980	16 980	1 741	27 802	0,61	0,61
2006	14,0	14,0	17 889	17 889	1 821	28 899	0,62	0,62
2007	15,0	15,0	18 871	18 871	1 911	30 149	0,63	0,63
2008	15,6	15,6	19 343	19 343	1 960	30 757	0,63	0,63
2009	15,2	15,2	18 658	18 658	1 904	29 721	0,63	0,63
2010	15,5	15,5	18 861	18 861	1 962	30 497	0,62	0,62
2011	15,9	15,9	19 221	19 221	2 022	31 108	0,62	0,62
2012	17,1	17,1	20 515	20 515	2 047	31 358	0,65	0,65
2013	17,0	17,0	20 373	20 373	2 076	31 579	0,65	0,65
2014	17,5	17,5	20 805	20 805	2 099	31 739	0,66	0,66

Given this long-term series of GDP for La Réunion, we then proceed to estimate our control total for income (Table C.3), which is an estimate of total taxable income in La Réunion. Following the assumption that all tax units declare their income as from 2001, we assume that the total income observe in the tax declaration as from that year in La Réunion corresponds to the total taxable income.

We first estimate the ratio between Average Taxable income per adult population in France to its GDP per capita for the period 1960 – 2014 (Column 3 in Table C3). The former is again expressed in terms of adult population rather than tax units to avoid capturing any ambiguous effects of demographic changes within the tax units. We then estimate the same ratio for the recent years (2001 – 2014) for La Réunion. While this ratio for France hovers around 0.43 to 0.59, the ratio for La Réunion ranges between 0.54 to 0.7 over the same period. The ratio between the ratio for La Réunion to that of France is 1,26 in 2001. In order to estimate the total taxable income for La Réunion for the years prior to 2001, we assume that the relationship between the two ratios remains constant at 1,26. Given the trends in the two ratios after 2001 as seen in Figure C.1, this assumption seems reasonable.

Figure C.1: Ratio between Average Taxable Income to GDP per capita in La
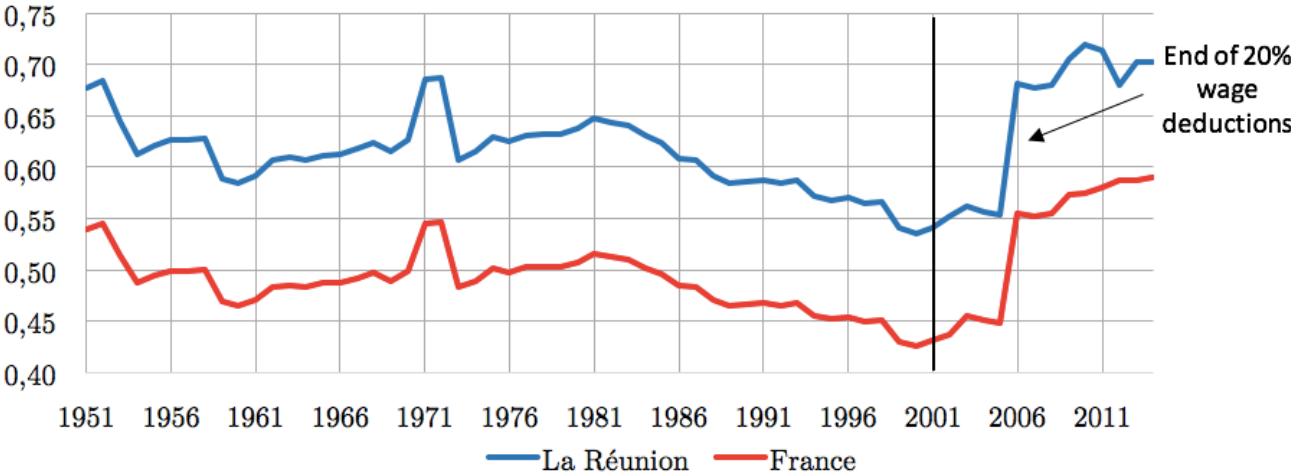
Réunion and France

This ratio is then used to estimate the average taxable income per adult population under the two aforementioned scenarios (column 4a and 4b). We then multiply these

columns by the number of adult population to obtain our total control for income under the two scenarios (column 7a and 7b).

Table C.3: Estimation of Control Total for Income

Year	Average Taxable Income FRA (1)	GDP per capita FRA (2)	Ratio Average Taxable: GDP per capita FRA (3)	Average Taxable Income REU (4a)	Average Taxable Income REU(4b)	GDP per capita REU (5)	GDP per capita REU (5b)	Ratio Average Taxable: GDP per capita REU (6)	Control Income (In million) (7a)	Control Income_2 (In million) (7b)
1960	2 983	6 408	0,47	884	1 137	1 511	1 944	0,58	138	177
1961	3 258	6 921	0,47	984	1 242	1 664	2 100	0,59	158	200
1962	3 691	7 640	0,48	1 136	1 407	1 872	2 318	0,61	187	231
1963	4 054	8 355	0,49	1 273	1 545	2 088	2 535	0,61	214	259
1964	4 430	9 173	0,48	1 418	1 689	2 337	2 784	0,61	243	290
1965	4 758	9 769	0,49	1 553	1 814	2 538	2 965	0,61	272	318
1966	5 119	10 489	0,49	1 703	1 952	2 778	3 183	0,61	304	349
1967	5 520	11 231	0,49	1 873	2 104	3 033	3 408	0,62	342	384
1968	6 022	12 118	0,50	2 083	2 296	3 337	3 677	0,62	391	430
1969	6 708	13 707	0,49	2 366	2 557	3 849	4 160	0,61	456	493
1970	7 578	15 178	0,50	2 725	2 889	4 345	4 606	0,63	539	572
1971	8 310	15 239	0,55	3 047	3 168	4 448	4 624	0,69	619	643
1972	9 194	16 821	0,55	3 437	3 505	5 006	5 104	0,69	716	730
1973	10 296	21 311	0,48	3 925	3 925	6 467	6 467	0,61	838	838
1974	11 934	24 380	0,49	4 908	4 908	7 981	7 981	0,61	1 073	1 073
1975	13 692	27 313	0,50	5 997	5 997	9 522	9 522	0,63	1 333	1 333
1976	15 677	31 515	0,50	6 702	6 702	10 725	10 725	0,62	1 514	1 514
1977	17 773	35 384	0,50	7 545	7 545	11 957	11 957	0,63	1 732	1 732
1978	20 157	40 067	0,50	8 381	8 381	13 261	13 261	0,63	1 972	1 972
1979	22 815	45 357	0,50	9 394	9 394	14 867	14 867	0,63	2 256	2 256
1980	25 924	51 086	0,51	10 615	10 615	16 651	16 651	0,64	2 594	2 594
1981	29 498	57 240	0,52	12 805	12 805	19 780	19 780	0,65	3 230	3 230
1982	33 395	65 194	0,51	15 248	15 248	23 696	23 696	0,64	4 143	4 143
1983	36 540	71 601	0,51	16 628	16 628	25 938	25 938	0,64	4 643	4 643
1984	38 922	77 585	0,50	18 697	18 697	29 668	29 668	0,63	5 361	5 361
1985	41 286	83 181	0,50	19 930	19 930	31 964	31 964	0,62	5 864	5 864
1986	43 244	89 280	0,48	22 072	22 072	36 274	36 274	0,61	6 660	6 660
1987	45 202	93 507	0,48	23 310	23 310	38 385	38 385	0,61	7 302	7 302
1988	47 083	99 952	0,47	24 194	24 194	40 886	40 886	0,59	7 857	7 857
1989	49 602	106 744	0,46	25 845	25 845	44 275	44 275	0,58	8 639	8 639
1990	52 356	112 164	0,47	27 831	27 831	47 462	47 462	0,59	9 994	9 994
1991	54 330	116 192	0,47	30 285	30 285	51 558	51 558	0,59	10 820	10 820
1992	55 519	119 420	0,46	31 810	31 810	54 466	54 466	0,58	11 683	11 683

1993	56 180	120 165	0,47	31 276	31 276	53 253	53 253	0,59	11 812	11 812
1994	56 924	125 008	0,46	31 137	31 137	54 431	54 431	0,57	12 078	12 078
1995	58 360	129 161	0,45	33 330	33 330	58 719	58 719	0,57	13 281	13 281
1996	59 966	132 227	0,45	35 693	35 693	62 652	62 652	0,57	14 601	14 601
1997	61 235	136 216	0,45	37 926	37 926	67 158	67 158	0,56	15 887	15 887
1998	63 697	141 308	0,45	40 987	40 987	72 382	72 382	0,57	17 584	17 584
1999	9 910	23 042	0,43	6 616	6 616	12 245	12 245	0,54	2 901	2 901
2000	10 304	24 161	0,43	7 128	7 128	13 304	13 304	0,54	3 202	3 202
2001	10 745	24 937	0,43	7 603	7 603	14 046	14 046	0,54	3 493	3 493
2002	11 153	25 547	0,44	8 100	8 100	14 689	14 689	0,55	3 796	3 796
2003	11 866	26 041	0,46	8 634	8 634	15 345	15 345	0,56	4 125	4 125
2004	12 187	27 017	0,45	8 962	8 962	16 110	16 110	0,56	4 365	4 365
2005	12 442	27 802	0,45	9 406	9 406	16 980	16 980	0,55	4 680	4 680
2006	16 019	28 899	0,55	12 197	12 197	17 889	17 889	0,68	6 172	6 172
2007	16 645	30 149	0,55	12 770	12 770	18 871	18 871	0,68	6 588	6 588
2008	17 051	30 757	0,55	13 146	13 146	19 343	19 343	0,68	6 943	6 943
2009	17 018	29 721	0,57	13 156	13 156	18 658	18 658	0,71	7 062	7 062
2010	17 506	30 497	0,57	13 572	13 572	18 861	18 861	0,72	7 369	7 369
2011	18 057	31 108	0,58	13 706	13 706	19 221	19 221	0,71	7 588	7 588
2012	18 419	31 358	0,59	13 947	13 947	20 515	20 515	0,68	7 836	7 836
2013	18 555	31 579	0,59	14 300	14 300	20 373	20 373	0,70	8 099	8 099
2014	18 724	31 739	0,59	14 606	14 606	20 805	20 805	0,70	8 369	8 369

To go from taxable income to fiscal income, which is the definition of income of interest, various corrections have to be made to the series. The corrections made here follow the ones in Garbinti et al., (2017). For a more detailed explanation of these corrections please refer to DINA Appendix D.2 of that paper and Piketty (2001, 2003). We apply the same correction factors as used in the series for France. Note that this might have to be updated to better reflect the situation in La Réunion. Nevertheless, we believe that it should not significantly change our estimates. These include an upgrade rate due to previous-year-tax deductions and other types of deductions such as the lump-sum deductions for wage earners. In 2006, the 20% deductions for additional professional expenses was repealed and is accounted for in the corrections factors. Similarly, we assume the same approximate aggregate taxable income to fiscal income ratio as in Garbinti et al., (2017). These are reported in column 7 and 8 of Table C.4, respectively excluding and including capital gains.

Table C.4: Taxable and Fiscal Income in La Réunion

Year	Taxable Income (in millions) (1)	Average Taxable Income per Tax units (2)	Total fiscal income (excl. cg) (in millions) (3)	Total fiscal income (incl. cg) (in millions) (4)	Average fiscal income (excl. cg) (per tax unit) (5)	Average fiscal income (incl. cg) (per tax unit) (6)	Ratio taxable income/ fiscal income (excl. cg) (7)	Ratio taxable income/fiscal income (incl. cg) (8)
1951	4 407	65 595	5 155	5 155	76 719	76 719	0,86	0,86
1952	5 484	65 641	6 414	6 414	76 773	76 773	0,86	0,86
1953	5 632	63 338	6 953	6 953	78 195	78 195	0,81	0,81
1954	5 949	66 317	7 828	7 828	87 259	87 259	0,76	0,76
1955	6 794	72 819	8 940	8 940	95 815	95 815	0,76	0,76
1956	7 911	81 636	10 409	10 409	107 415	107 415	0,76	0,76
1957	9 335	92 868	12 282	12 282	122 195	122 195	0,76	0,76
1958	11 261	108 137	14 817	14 817	142 286	142 286	0,76	0,76
1959	11 977	111 145	16 634	16 634	154 369	154 369	0,72	0,72
1960	138	1 235	194	194	1 740	1 740	0,71	0,71
1961	158	1 374	223	223	1 935	1 935	0,71	0,71
1962	187	1 592	263	263	2 242	2 242	0,71	0,71
1963	214	1 788	301	301	2 518	2 518	0,71	0,71
1964	243	1 998	343	343	2 814	2 814	0,71	0,71
1965	272	2 194	383	383	3 091	3 091	0,71	0,71
1966	304	2 415	429	429	3 401	3 401	0,71	0,71
1967	342	2 663	481	481	3 751	3 751	0,71	0,71
1968	391	2 946	550	550	4 149	4 149	0,71	0,71
1969	456	3 328	642	642	4 687	4 687	0,71	0,71
1970	539	3 813	760	760	5 370	5 370	0,71	0,71
1971	619	4 240	872	872	5 972	5 972	0,71	0,71
1972	716	4 758	1 008	1 008	6 701	6 701	0,71	0,71
1973	838	5 404	1 180	1 180	7 611	7 611	0,71	0,71
1974	1 073	6 721	1 511	1 511	9 466	9 466	0,71	0,71
1975	1 333	8 208	1 877	1 877	11 560	11 560	0,71	0,71
1976	1 514	9 167	2 133	2 133	12 911	12 911	0,71	0,71
1977	1 732	10 313	2 439	2 439	14 526	14 526	0,71	0,71
1978	1 972	11 449	2 777	2 777	16 125	16 125	0,71	0,71
1979	2 256	12 825	3 177	3 177	18 064	18 064	0,71	0,71
1980	2 594	14 482	3 653	3 653	20 397	20 397	0,71	0,71
1981	3 230	17 460	4 549	4 549	24 591	24 591	0,71	0,71
1982	4 143	20 777	5 835	5 835	29 263	29 263	0,71	0,71
1983	4 643	22 591	6 539	6 539	31 818	31 818	0,71	0,71
1984	5 361	25 326	7 550	7 550	35 671	35 671	0,71	0,71
1985	5 864	26 917	8 259	8 259	37 912	37 912	0,71	0,71
1986	6 660	29 723	9 380	9 380	41 863	41 863	0,71	0,71

1987	7 302	31 299	10 284	10 284	44 083	44 083	0,71	0,71
1988	7 857	32 391	10 948	11 066	45 135	45 622	0,72	0,71
1989	8 639	34 501	12 167	12 167	48 594	48 594	0,71	0,71
1990	9 994	37 045	14 077	14 077	52 175	52 175	0,71	0,71
1991	10 820	40 195	15 240	15 240	56 613	56 613	0,71	0,71
1992	11 683	42 097	16 455	16 455	59 291	59 291	0,71	0,71
1993	11 812	41 272	16 636	16 636	58 130	58 130	0,71	0,71
1994	12 078	40 971	17 011	17 011	57 706	57 706	0,71	0,71
1995	13 281	43 731	18 706	18 706	61 594	61 594	0,71	0,71
1996	14 601	46 700	20 565	20 565	65 774	65 774	0,71	0,71
1997	15 887	49 480	22 376	22 376	69 690	69 690	0,71	0,71
1998	17 584	53 323	24 766	24 766	75 103	75 103	0,71	0,71
1999	2 901	8 583	4 086	4 086	12 088	12 088	0,71	0,71
2000	3 202	9 436	4 510	4 510	13 291	13 291	0,71	0,71
2001	3 493	10 254	4 919	4 919	14 442	14 442	0,71	0,71
2002	3 796	10 607	5 347	5 347	14 939	14 939	0,71	0,71
2003	4 125	11 076	5 736	5 809	15 402	15 599	0,72	0,71
2004	4 365	11 330	6 048	6 148	15 699	15 958	0,72	0,71
2005	4 680	11 848	6 472	6 591	16 386	16 688	0,72	0,71
2006	6 172	15 168	7 037	7 176	17 294	17 637	0,88	0,86
2007	6 588	15 755	7 506	7 661	17 950	18 320	0,88	0,86
2008	6 943	16 166	7 979	8 074	18 577	18 797	0,87	0,86
2009	7 062	16 228	8 160	8 212	18 751	18 870	0,87	0,86
2010	7 369	16 409	8 505	8 569	18 939	19 081	0,87	0,86
2011	7 588	16 910	8 752	8 824	19 504	19 663	0,87	0,86
2012	7 836	17 106	9 070	9 111	19 801	19 890	0,86	0,86
2013	8 099	17 299	9 375	9 418	20 024	20 115	0,86	0,86
2014	8 369	17 497	9 731	9 731	20 346	20 346	0,86	0,86

D. Top Income Estimations

In this section we report the top income shares, the corresponding income thresholds and average income.

Table D.1: Top income shares in La Réunion

Year	Top 10%	Top 1%	Top 0.1%	Top 0.01%
1960a		41,1%	12,8%	2,7%
1960b		31,6%	9,8%	2,1%
1986	63,8%	14,5%	3,0%	0,6%
1987	63,4%	15,0%	3,3%	0,8%
1989	62,3%	14,8%	3,4%	0,8%
1990	59,1%	13,9%	3,2%	0,8%
1991	57,1%	13,0%	2,8%	0,7%
1992	55,9%	12,5%	2,7%	0,6%
1993	58,0%	12,6%	2,6%	0,5%
1994	59,7%	12,9%	2,7%	0,6%
1995	56,9%	12,3%	2,4%	0,5%
1996	53,9%	11,4%	2,2%	0,4%
1997	51,4%	10,8%	2,0%	0,4%
1998	48,3%	10,2%	2,0%	0,4%
2000	47,5%	10,5%	1,8%	0,3%
2001	46,0%	11,1%	2,7%	0,7%
2002	45,7%	11,1%	2,7%	0,7%
2003	44,3%	10,1%	2,3%	0,6%
2004	43,9%	10,1%	2,4%	0,7%
2005	43,3%	10,3%	2,7%	0,9%
2006	42,7%	10,0%	2,4%	0,7%
2007	42,5%	10,2%	2,5%	0,7%
2008	42,6%	10,5%	2,6%	0,7%
2009	42,6%	10,4%	2,5%	0,6%
2010	42,6%	10,4%	2,6%	0,7%
2011	42,5%	9,9%	1,9%	0,4%
2012	42,5%	9,8%	1,8%	0,3%
2013	42,6%	10,2%	2,3%	0,5%
2014	42,5%	10,2%	2,3%	0,5%

Table D.1 is read as follows: In 2014, the top 10% richest had 42.5% of total income, top 1% had 10.2%, top 0.1% has 2.3% and similarly the top 0.01% had 0.5% of total income.

Table D.2: Shares within shares (P90-99, P99-99.9, P99.9-99.99, P99.99-100)

Year	P90-99	P99-99.9	P99.9-99.99	P99.99-100
1960a		28,3%	10,1%	2,7%
1960b		21,7%	7,7%	2,1%
1986	49,3%	11,5%	2,4%	0,6%
1987	48,5%	11,7%	2,5%	0,8%
1989	47,6%	11,4%	2,6%	0,8%
1990	45,2%	10,7%	2,4%	0,8%
1991	44,1%	10,1%	2,2%	0,7%
1992	43,5%	9,8%	2,1%	0,6%
1993	45,4%	10,0%	2,0%	0,5%
1994	46,8%	10,3%	2,1%	0,6%
1995	44,7%	9,9%	1,9%	0,5%
1996	42,6%	9,2%	1,8%	0,4%
1997	40,6%	8,8%	1,7%	0,4%
1998	38,1%	8,2%	1,6%	0,4%
2000	37,0%	8,7%	1,5%	0,3%
2001	34,9%	8,4%	2,0%	0,7%
2002	34,6%	8,4%	2,0%	0,7%
2003	34,3%	7,8%	1,7%	0,6%
2004	33,8%	7,8%	1,7%	0,7%
2005	33,0%	7,6%	1,8%	0,9%
2006	32,7%	7,6%	1,8%	0,7%
2007	32,3%	7,6%	1,8%	0,7%
2008	32,2%	7,9%	1,9%	0,7%
2009	32,2%	7,9%	1,9%	0,6%
2010	32,2%	7,8%	1,9%	0,7%
2011	32,6%	8,0%	1,5%	0,4%
2012	32,7%	8,1%	1,4%	0,3%
2013	32,5%	7,9%	1,8%	0,5%
2014	32,3%	7,9%	1,8%	0,5%

From here onwards, the year 1960 refers to estimates under Scenario 2.

Table D.3: Thresholds for P90, P95, P99, P99.9 and P99.99

Year	P90	P95	P99	P99.9	P99.99
1960			5 533	19 637	53 993
1986	22 220	34 028	62 351	131 992	272 213
1987	22 956	35 184	65 755	144 990	320 100
1989	25 093	37 901	70 681	157 342	366 692
1990	25 369	38 594	72 566	157 666	368 959
1991	27 322	41 056	75 812	158 315	354 045
1992	28 382	42 306	77 787	158 018	346 839
1993	29 214	43 249	79 515	154 474	319 201
1994	29 869	44 083	80 611	158 484	333 437
1995	30 642	44 949	82 564	159 290	304 292
1996	31 355	45 675	82 574	156 894	303 192
1997	31 757	46 195	83 665	157 925	295 680
1998	32 143	46 703	83 819	162 558	321 777
2000	34 851	50 599	99 680	184 737	311 618
2001	37 436	54 194	98 623	237 266	582 365
2002	38 345	55 588	102 209	245 366	590 867
2003	40 168	57 208	105 993	215 146	521 194
2004	40 842	57 763	107 497	223 461	558 169
2005	42 235	59 005	107 939	241 962	677 884
2006	44 233	61 924	112 796	255 959	638 816
2007	45 340	63 650	116 772	273 696	694 968
2008	46 046	64 902	120 890	292 466	723 336
2009	46 386	65 419	120 770	292 312	713 472
2010	47 087	66 272	119 641	288 304	759 892
2011	48 991	68 812	127 164	315 968	451 279
2012	49 708	69 981	129 174	316 125	422 082
2013	50 202	70 603	126 955	315 131	655 802
2014	50 770	71 123	127 133	323 696	652 867

Table D.2 is reported in current euros and is read as follows: In 2014, the minimum income required to be in the top 10% was 50 770 €, to be in the top 5% it was 71 123 €, to be in the top 1% it was 127 133 € and to be part of the top 0.1% and top 0.01%, it was 323 696 € and 652 867 € respectively.

Table D.4: Top average income

| Year	P90-100	P95-100	P99-100	P99.9-100	P99.99-100
1960			10 786	33 622	72 156
1986	40 687	54 019	92 500	192 876	409 248
1987	42 627	56 993	100 602	221 789	507 658
1989	46 184	61 739	109 393	250 330	613 399
1990	46 992	62 804	110 435	251 674	620 864
1991	49 279	65 307	112 026	244 614	573 264
1992	50 570	66 660	112 614	241 003	553 270
1993	51 412	67 499	111 423	226 140	484 094
1994	52 518	68 984	113 892	234 825	513 561
1995	53 463	70 126	115 238	221 714	432 149
1996	54 072	70 534	113 976	219 982	435 613
1997	54 653	71 227	115 044	217 129	414 144
1998	55 312	72 109	117 331	231 406	470 926
2000	61 679	81 555	136 544	238 921	404 298
2001	66 379	88 092	160 125	391 058	995 723
2002	68 243	90 705	165 625	398 638	992 164
2003	69 148	90 738	157 101	355 168	957 876
2004	70 121	92 045	161 606	378 379	1 062 054
2005	72 238	94 990	171 865	452 774	1 453 706
2006	75 347	98 780	176 817	429 140	1 150 674
2007	77 826	102 344	186 401	465 165	1 272 194
2008	80 105	106 086	196 445	485 462	1 263 949
2009	80 447	106 336	196 067	479 018	1 203 457
2010	81 350	107 357	199 308	497 877	1 312 801
2011	83 520	109 478	194 881	366 695	758 213
2012	84 625	110 806	195 486	351 721	675 909
2013	85 736	112 441	204 530	463 400	1 011 798
2014	86 382	113 242	206 753	466 641	998 991

The corresponding inverted Pareto Coefficients are reported in Table D.5.

Table D.5: Inverted Pareto Coefficients

Year	b90	b99	b99,9	b99,99	b99,999
1960		1,95	1,71	1,34	1,17
1986	1,83	1,48	1,46	1,50	1,49
1987	1,86	1,53	1,53	1,59	1,58
1989	1,84	1,55	1,59	1,67	1,68
1990	1,85	1,52	1,60	1,68	1,69
1991	1,80	1,48	1,55	1,62	1,62
1992	1,78	1,45	1,53	1,60	1,60
1993	1,76	1,40	1,46	1,52	1,51
1994	1,76	1,41	1,48	1,54	1,54
1995	1,74	1,40	1,39	1,42	1,41
1996	1,72	1,38	1,40	1,44	1,43
1997	1,72	1,38	1,37	1,40	1,39
1998	1,72	1,40	1,42	1,46	1,45
2000	1,77	1,37	1,29	1,30	1,27
2001	1,77	1,62	1,65	1,71	1,71
2002	1,78	1,62	1,62	1,68	1,67
2003	1,72	1,48	1,65	1,84	1,84
2004	1,72	1,50	1,69	1,90	1,91
2005	1,71	1,59	1,87	2,14	2,16
2006	1,70	1,57	1,68	1,80	1,80
2007	1,72	1,60	1,70	1,83	1,83
2008	1,74	1,62	1,66	1,75	1,75
2009	1,73	1,62	1,64	1,69	1,68
2010	1,73	1,67	1,73	1,73	1,73
2011	1,70	1,53	1,16	1,68	1,68
2012	1,70	1,51	1,11	1,60	1,59
2013	1,71	1,61	1,47	1,54	1,53
2014	1,70	1,63	1,44	1,53	1,52

E. Demography

Figure E.1: Population Pyramid in DROM compared to Metropolitan France
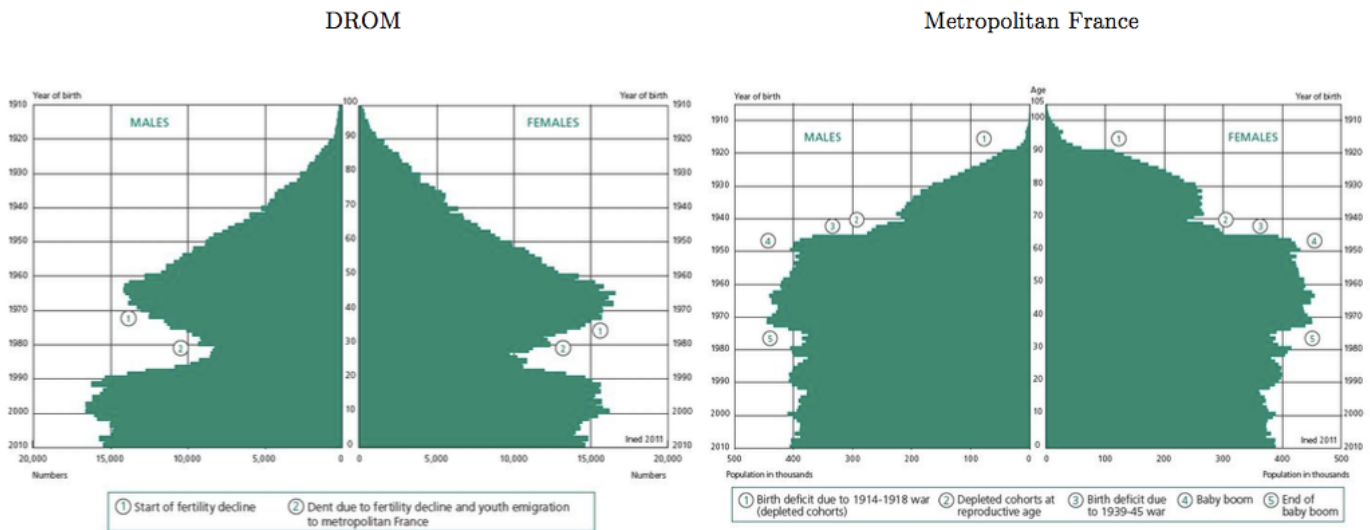
Source: Mazuy et al., (2011)

F. Archives

Extract:

M. J. B. Hoareau. — Nombre d'entre vous mes collègues étaient absents lorsqu'il s'est agi de voter l'impôt sur le Revenu, beaucoup d'entre vous également ignorent ce qui a été fait et ce qui a été dit à la Commission qui a été chargée d'étudier préalablement la question. Je ne plaide pas ici ma cause je ne suis qu'un simple employé vivant d'appointements modestes, mais franchement laissez moi vous dire que j'ai peur de l'impôt sur le Revenu.

M'adressant au Chef du Service des Domaines je lui ai posé cette question : si le contribuable, en déclarant sont revenu le fait honnêtement, de bonne foi et qu'il dise qu'il possède par exemple 10. mille francs. Que se passera-t-il si, à ce moment il y a doute de la part du fonctionnaire ?

Il m'a été répondu : Si le fonctionnaire doute de votre déclaration on va vous imposer non pas à 10. mille mais 20. mille francs J'ai alors demandé à ce que le contribuable puisse avoir un Conseil c'est à dire quelqu'un qui puisse décider entre lui et le fonctionnaire. On a fort bien compris la chose et tour à tour il fut question du Maire et du juge de Paix. Mais dès ce moment je m'élevait contre l'impôt sur le Revenu parceque le contribuable n'y trouvait pas de garantie. suffisante Nous voyons cet impôt aujourd'hui à 5 ./. demain il sera à 10 •/. puis à 20 °/. etc... Nous traversons un moment très pénible, il faut de l'argent et encore de l'argent. Puisque le Conseil d'Etat n'a pas accepté la garantie indispensable sur laquelle vous comptiez. Je vous demanderai purement et simplement de repousser cet impôt.

M. Hoareau. — Je persiste à penser que notre pays n'est pas mûr pour cet impôt. Nous savons que beaucoup trop de fonctionnaires s'occupent de politique, que c'est en quelque sorte un brevet de capacité pour eux.

Source: Rapport et procès-verbaux des deliberations, Ile de La Réunion, Conseil Générale
(3eme session extraordinaire de 1921, 16 Avril 1921)

The above extract is taken from the minutes of the session of the Conseil Générale in 1921. It gives an insight on the debate surrounding the introduction of the income tax in La Réunion under the colonial rule. It was implemented around 20 years later.