Toolkit/guidelines

The TaxDev employment income taxes dataset (Africa)

Technical guide: v1.0

Kyle McNabb

January 2022

Abstract

This technical guide describes the Centre for Tax Analysis in Developing Countries (TaxDev) employment income taxes dataset (EITD). It covers in detail the sources consulted, construction, strengths and limitations of the dataset. It also includes detailed country-by-country notes.

How to cite: McNabb, K. (2022) 'The TaxDev employment income taxes dataset (Africa): technical guide v1.0'. London: ODI (https://odi.org/en/publications/the-taxdev-employment-income-taxes-dataset-and-technical-guide).

Acknowledgements

We acknowledge excellent research assistance from Naomi Bellshaw and Antti Pelanteri, and additional comments from Daniel Nuer, Harshil Parekh, Francisco Miguel Paulo and Sebastian Schaber. Thanks also to Adrienne Lees for initial brainstorming in the summer of 2019.

We acknowledge funding from UK Aid, through the Centre for Tax Analysis in Developing Countries (TaxDev). This research was commissioned as part of the TaxDev research fund. The fund supports high-quality, policy-relevant theoretical and empirical research on taxation and social protection in low- and middle-income countries (LMICs). The views presented in this paper are those of the authors alone, and do not represent the views of the Institute for Fiscal Studies (IFS), ODI, or our partners.

The authors bear sole responsibility for any errors of content or analysis.

About the authors

Kyle McNabb is a Research Associate in ODI's Development and Public Finance team and a Tax Policy Advisor to the Ministry of Finance, Planning and Economic Development in Uganda on the TaxDev programme, funded by the Foreign, Commonwealth and Development Office (FCDO). Kyle can be found on Twitter @kylemcnabb.

Contents

Display items

Tables

Acronyms

EIT	employment income taxes
EITD	employment income taxes dataset
FY	fiscal year
LCU	local currency unit
PIT	Personal Income Tax
PwC	PricewaterhouseCoopers
SSC	social security contribution
TaxDev	Centre for Tax Analysis in Developing Countries

1 The EITD: construction, variables, assumptions

This technical guide provides an overview of the Centre for Tax Analysis in Developing Countries (TaxDev) employment income taxes dataset (EITD). The EITD is a panel dataset, containing information on the personal and employment income taxes faced by employees in all African countries, between the mid-1990s and the year 2020. Whilst the initial version of the EITD covers African countries, future updates will extend coverage to other regions, with a view to attaining near-global coverage in the future.

The view of the EITD project is to make available a panel dataset for research and policy-making purposes, which allows for the analysis of taxes on employment income, namely wages and salaries. We encourage input and collaboration from our users and the wider research/policy-making community. If you have comments, suggestions or ideas for improvement, please do not hesitate to get in touch with Kyle McNabb (k.mcnabb@odi.org.uk).

The authors bear sole responsibility for any errors, inaccuracies or misinterpretations of underlying source data contained within.

Construction of the EITD

The EITD (v1.0) was constructed during 2020–2021 and collates data exclusively from publicly available sources:

Andrew Young School *World tax indicators* (https://icepp.gsu.edu/what-we-do/research/world-tax-indicators/)

Coopers and Lybrand *International tax summaries*

Deloitte *Guide to fiscal information*

Droit-Afrique (www.droit-afrique.com)

ENS Africa *Doing Business guides* (www.ensafrica.com/doing-business)

Ernst & Young *Global executive*

Ernst & Young *Worldwide personal tax guide*

Ernst & Young *Worldwide personal tax and immigration guide*

International Monetary Fund *Article IV Staff Reports and Statistical Appendices*

International Social Security Association *Social security programs throughout the world* (www.ssa.gov/policy/docs/progdesc/ssptw/)

PKF *Worldwide tax guide*

PricewaterhouseCoopers *Individual taxes: worldwide summaries*

SADC *Tax database* (www.sadc.int/information-services/tax-database)

Genschel and Seelkopf *Tax introduction database* (https://cadmus.eui.eu/handle/1814/65326)

USAID *Collecting taxes database* (www.usaid.gov/what-we-do/economic-growth-and-trade/domestic-resource-mobilization/collecting-taxes-database)

In addition, the national tax laws of various countries and the websites for finance ministries and revenue authorities were also consulted.

The majority of these sources were consulted online, and some through archived versions at https://archive.org. Others were consulted physically in various archives. Our preferred source for any country-year observation is a country's national tax laws. Whilst a number of countries retain online archives of every income tax amendment since the inception of an income tax act, others have made such documents public only sporadically. This means that it is difficult to rely on national tax laws as the favoured source, but in cases where one or more sources report conflicting information, we prefer to take data from the national income tax laws.[1]

Depending on the time period, some sources are relied on more heavily than others. For example, the International Monetary Fund (IMF) Statistical Appendices often included details of a country's tax system during the 1990s and early 2000s, but thereafter the practice ends, with only a sporadic presence of useful data beyond. The Coopers and Lybrand *International tax summaries* are also very informative for the late 1990s. One of the most useful sources for more recent years is the online Ernst & Young *Worldwide personal tax guide* (formerly the *Global executive* reports), providing coverage from 2006 onwards. Scattered volumes of PricewaterhouseCoopers' (PwC) *Individual taxes: worldwide summaries* were consulted where available.

Our preferred source for data on social security contributions (SSCs) is the International Social Security Association *Social security programs throughout the world*.

All data was manually extracted from the underlying source documents and tabulated in Microsoft Excel format.

Data coverage

Table 1 shows the coverage of the EITD Africa dataset. It contains a total of 1,301 'complete' observations for 54 countries. A complete observation is defined as one where full information is available on the primary employment income tax schedule. Other, partial, information for 'incomplete' observations is available within the EITD. The 'average' first-year data occurs in 1996.

1 The website www.droit-afrique.com is a useful hub for accessing the national tax laws and amendments for a large number of countries.

Table 1 EITD Africa coverage

Country	Number of complete years	First year	Last year
Algeria	26	1995	2020
Angola	25	1995	2020
Benin	24	1996	2020
Botswana	31	1990	2020
Burkina Faso	26	1995	2020
Burundi	26	1995	2020
Cabo Verde	21	1996	2020
Cameroon	26	1995	2020
Central African Rep.	26	1995	2020
Chad	27	1995	2020
Comoros	26	1995	2020
Congo, Rep. of the	26	1995	2020
Côte d'Ivoire	24	1997	2020
Dem. Rep. of the Congo	21	2000	2020
Djibouti	26	1995	2020
Egypt	25	1996	2020
Equatorial Guinea	27	1995	2020
Eritrea	27	1995	2020
Eswatini	26	1995	2020
Ethiopia	27	1994	2020
Gabon	26	1995	2020
Gambia	25	1995	2019
Ghana	26	1995	2020
Guinea	24	1997	2020
Guinea-Bissau	13	1995	2020
Kenya	27	1995	2021
Lesotho	27	1994	2020

Country	Number of complete years	First year	Last year
Liberia	22	1999	2020
Libya	21	1995	2020
Madagascar	26	1995	2020
Malawi	27	1995	2021
Mali	26	1995	2020
Mauritania	26	1995	2020
Mauritius	26	1995	2020
Morocco	26	1995	2020
Mozambique	26	1995	2020
Namibia	25	1995	2019
Niger	26	1995	2020
Nigeria	26	1995	2020
Rwanda	23	1998	2020
São Tomé and Príncipe	23	1995	2019
Senegal	26	1995	2020
Seychelles	26	1995	2020
Sierra Leone	23	1995	2020
Somalia	4	2000	2020
South Africa	26	1996	2021
South Sudan	9	2012	2020
Sudan	7	1995	2020
Togo	26	1995	2020
Tunisia	26	1995	2020
Uganda	26	1995	2020
Tanzania	25	1996	2020
Zambia	26	1995	2020
Zimbabwe	21	1995	2019

Source: Author's calculations from EITD (2022)

Variables in the EITD

This section discusses each of the variables in the EITD. Table 2 and the discussion below describe the metadata present in the EITD.

Table 2 EITD variables

Variable name	Description
identifier	Unique Identifier (ISO + Year)
country	Country Name
iso	Three-letter ISO code
fy	Financial Year
year	Calendar Year
source	Data source
link	Link to data / document (if available online)
linkpage	Page # in linked document
notes_general	General notes
notes_allowances	Notes relating to allowances
notes_credits	Notes relating to credits
notes_surtax	Notes relating to surtaxes
notes_ssc	Notes relating to employee social security contributions
reg	World Bank Region[2]
period	Period to which data pertains
inc	World Bank (Historical) Income group[3] (low, lower-middle, upper-middle, high)
currency	Currency in which the data is presented

Source: EITD (2022)

Allocating a calendar year to financial year reporting

In constructing the EITD at the country-year level, it was necessary to allocate different financial years to a calendar year. The financial year with the greatest number of months was used as the calendar year, unless otherwise advised by country documentation; for example, the South African Revenue Service (SARS) suggests that the 1 March 2015 to 29 February 2016 period is allocated to the 2016 tax year.[4] Using this method, if a country's financial year ran from 1 April 2015 to 31 March 2016, it was allocated to the 2015 calendar year. In cases where the financial year runs from 1 July to 30 June, the calendar year was taken as the year in which the financial year ended (e.g. if the financial year ran from 1 July 2015 to 30 June 2016, the calendar year allocated would be 2016).[5]

Income group variable

The income group variable (inc) included is the historical income group from the World Bank. Many countries in the dataset have moved between income groups over the period in question. Thus, in order to ascertain the current income group for a country, the user should check the most recent data point.

'Notes' variables

The dataset contains four notes columns, pertaining to general notes, and notes relating to allowances, credits and surtaxes. For many observations there are no notes included, but where present they contain pertinent information on how the tax rates included are applied

2 https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.
3 ibid.
4 www.sars.gov.za/tax-rates/income-tax/rates-of-tax-for-individuals/.
5 The 'period' variable contains information on the period to which the tax rates apply. This is, in almost all cases, the financial or calendar year. However, for a small number of observations there was either (i) more than one reform to employment income tax rates during the financial year, or (ii) reforms that occurred *during* a financial year, rather than at its beginning. In such cases, the period variable contains details.

to income. The variable notes_ssc contains information on the earnings floors and ceilings (where present) applicable for social security contributions. The 'Country notes' section of this technical guide includes some of this information on a country-by-country basis.

Currency

The currency variable lists the currency in which the tax bands, allowances etc. are denoted. This is always in current local currency units (LCUs). There are, however, a number of cases where a country has re-denominated its currency over the period in question. In such cases, the data is often corrected such that older information is re-denominated to match the current practice. Where this has occurred, information will be provided in the notes columns or 'Country notes' of this document.

Table 3 Tax variable descriptions

Variable name	Description
taxname	Name of the main employment income tax present (to which the lb, ub and r variables pertain).
eit	Dummy variable equal to 1 if a tax on employment income was in place, 0 otherwise, empty if missing.
flatrate	Dummy variable equal to 1 if a flat rate tax on employment income was in place, 0 otherwise, empty if missing.
pers_ded	Dummy variable equal to 1 if a personal deduction was present, 0 if not, empty if missing.
pers_ded_type	The type of personal deduction in operation. This can take the form of either (i) zero rate, (ii) a tax-free allowance or (iii) credit/rebate.
zerorate	Dummy variable equal to 1 if the first tax band was 0%, 0 otherwise, empty if missing. The amount of the 0% band will be denoted by ub1 for the relevant observation.
allowance	Dummy variable equal to 1 if an allowance was in place (note: it is sometimes the case that allowances and zero rates coexist), 0 if not present, empty if missing.
allowance_amt	Amount of the allowance. Most often annual LCU figure but for some observations a formula is applied; 0 if not present, empty if missing.
univ_taxcr	Dummy variable equal to 1 if a universal tax credit (or rebate) was in place, 0 if not present, empty if missing.
univ_taxcr_amt	Amount of the universal tax credit, 0 if not present, empty if missing. Most often in annual LCU.
dependent_children	Allowance for dependent children. Most often in annual LCU but for some observations a percentage or formula is applied; 0 if not present, empty if missing.
ovr60	Allowances for taxpayers (or household members) over the age of 60, denoted in annual LCU; 0 if not present, empty if missing.
disability	Allowance for disability, denoted in annual LCU; 0 if not present, empty if missing.
marriage	Spousal allowance, denoted in annual LCU; 0 if not present, empty if missing.
other1	Other allowance 1 (detailed in notes_allowances or notes_credits), 0 if not present, empty if missing.
other2	Other allowance 2 (detailed in notes_allowances or notes_credits), 0 if not present, empty if missing.
surtax	Dummy variable equal to 1 if a surtax is in place, 0 if not, empty if missing.

Table 3 Tax variable descriptions

Variable Name	Description
surtax_rate	Surtax rate, in per cent coded 0–1 or in annual LCU.
soc_contr_employee	Employee social contribution rate, in per cent, coded 0–1.
soc_contr_ded	Dummy variable equal to 1 if employee social contributions are tax deductible, 0 if not, empty if missing.
nbands	Number of Personal Income Tax (PIT) bands.
bottom_rate	Bottom PIT rate according to the schedule (i.e. includes a zero rate, but not a personal exemption, deduction or credit that would bring an employee's liability to zero).
top_rate	Top PIT rate, according to the schedule (i.e. not including additional surtaxes or contributions).
lb[n]	Lower band [n], in annual LCU. Empty if missing.
r[n]	Rate [n], in percent coded 0–1. Empty if missing.
ub[n]	Upper band [n], in annual LCU. Empty if missing.

Source: EITD (2022)

The EITD does not provide information on **every** allowance, credit or deduction from gross income in every country. It instead focuses on a subset, related to household circumstances, namely allowances for dependent children or spouses, disability, or old-age allowance. Additional, pertinent allowances are detailed in the other1 and other2 variables. The most frequently observed allowances in underlying data that are not included in the EITD are those for medical, insurance or educational expenses.

Bands and rates

The primary variables of interest for most users of the EITD are likely to be the rates and bands (or thresholds) of a Personal Income Tax (PIT) or Pay As You Earn (PAYE) system. These are coded as lb, ub and r, corresponding to lower band, upper band and rate, respectively. Each of these is assigned a number, corresponding to the band in question. Thus, lb1, ub1 and r1 show the lower and upper band value (in LCU) and marginal rate (in per cent) for the first tax band. The dataset is in 'wide' format, and thus the information is displayed as shown in Table 4, using Rwanda from 2019–2020 as an example.

Table 4 Example of lb, ub and r variables

Identifier	lb1	r1	ub1	lb2	r2	ub2	lb3	r3
RWA2020	–	0	360,000	360,001	0.2	1,200,000	1,200,001	0.3

Source: EITD (2022)

However, in most sources such as national tax laws, the tax schedule would be displayed, for example, as in Table 5.

Table 5 Rate schedule (annual) for Rwanda 2019–2020

Lower bound	Upper bound	Rate
–	RWF 360,000	0%
RWF360,001	RWF 1,200,000	20%
RWF1,200,001 and above		30%

Source: EITD (2022)

Assumptions and limitations

Converting monthly tax schedules to annual tax schedules

In a number of source documents, such as national tax laws, the lower and upper thresholds for each band are listed monthly. However, the EITD converts all LCU amounts to annual figures. This can lead to very small differences in the threshold amounts compared to the source.

For example, if a country had a monthly tax schedule as follows:

Lower bound	Upper bound	Rate
$100,001	$750,000	35%

When converted to annual thresholds, the calculation would yield:

Lower bound	Upper bound	Rate
$1,200,012	$9,000,000	35%

However, in the EITD, this is coded as:

Lower bound	Upper bound	Rate
$1,200,001	$9,000,000	35%

Thus, for this hypothetical example, there would be a difference of $11 on the lower threshold of the tax band. In such cases, it might be that the income tax law in question intended that the marginal rate of this band (annually) simply be charged on each dollar *over the threshold* (regardless of whether that threshold is expressed monthly or annually), or it might be that taxes in a particular country are always calculated and paid on a monthly basis, and thus a correct (annual) interpretation would be that the lower threshold be set at $1,200,012. The amounts involved will always be small – indeed, no more than 11 × 1 local currency unit – but users should nonetheless bear this in mind when using the data on rates and bands to calculate tax burdens.

Similarly, it might be the case that the smallest denomination of a currency unit is 100, 1,000, or even greater. The EITD does not account for such cases; as outlined above, the next 'lower band' will be 1 LCU above the previous 'upper band'.

Data gaps, assumptions and limitations

As with any dataset of this nature, there are some data gaps. A number of assumptions were made in order to ensure that gaps were minimised. First, in cases where two data points existed at either side of a data gap, and these showed that the same – for example – tax rates were in place, we impute the data in-between. Take for example the case of Malawi between 2002 and 2005. The EITD contains data points for both 2002 and 2005, where data is taken from the IMF Statistical Appendices; no source was available in 2003 or 2004 (Table 6). However, we see that the structure of the PIT bands and rates was the same in 2002 and 2005, so we assume there were no changes to the law in these years. We see this approach as valid because, for the entirety of the EITD, we do not observe any cases where a PIT system was revised, only to return to its previous levels.

Table 6 Data gaps: Malawi 2002–2005

Source	Year	lb1	r1	ub1	lb2	r2	ub2	lb3	r3	ub3	lb4	r4	ub4	lb5	r5
IMF	2002	–	0	36,000	36,001	0.15	54,000	54,001	0.25	72,000	72,001	0.35	100,000	100,001	0.4
Imputed	2003	–	0	36,000	36,001	0.15	54,000	54,001	0.25	72,000	72,001	0.35	100,000	100,001	0.4
Imputed	2004	–	0	36,000	36,001	0.15	54,000	54,001	0.25	72,000	72,001	0.35	100,000	100,001	0.4
IMF	2005	–	0	36,000	36,001	0.15	54,000	54,001	0.25	72,000	72,001	0.35	100,000	100,001	0.4

Note: All ub and lb variables in LCU (Malawian kwacha).
Source: EITD (2022)

Second, there exist cases where two points exist either side of a data gap showing that different tax rates, for example, were in place. Take the case of Togo between 1999 and 2001. The variable considered is the employee social security contribution rate.

Table 7 shows that somewhere between 1999 and 2003 the employee social security contribution rate changed from 2.4% to 4% of gross income. However, we do not have any sources for 2000, 2001 and 2002 to validate exactly when this occurred. It is therefore left blank.

Table 7 Data gaps: Togo example

Identifier	soc_contr_employee
TGO1999	0.024
TGO2000	
TGO2001	
TGO2002	
TGO2003	0.04

Source: EITD (2022)

A similar situation might be that there is a gap in coverage, but the next available year after the gap coincides with the introduction of a reform. Take, for example, a case from Ethiopia, shown in Table 8.

Table 8 Data gaps: Ethiopia example

Source	Year	lb1	r1	ub1	lb2	r2	ub2	lb3	r3	ub3	lb4	r4	ub4
IMF	1999	–	0	1,440	1,441	0.1	7,200	7,201	0.15	14,400	14,401	0.2	24,000
Imputed	2000	–	0	1,440	1,441	0.1	7,200	7,201	0.15	14,400	14,401	0.2	24,000
Imputed	2001	–	0	1,440	1,441	0.1	7,200	7,201	0.15	14,400	14,401	0.2	24,000
Imputed	2002	–	0	1,440	1,441	0.1	7,200	7,201	0.15	14,400	14,401	0.2	24,000
IMF	2003	–	0	1,800	1,801	0.1	7,800	7,801	0.15	16,800	16,801	0.2	28,200

Source	Year	lb5	r5	ub5	lb6	r6	ub6	lb7	r7
IMF	1999	24,001	0.3	36,000	36,001	0.4			
Imputed	2000	24,001	0.3	36,000	36,001	0.4			
Imputed	2001	24,001	0.3	36,000	36,001	0.4			
Imputed	2002	24,001	0.3	36,000	36,001	0.4			
IMF	2003	28,201	0.25	42,600	42,601	0.3	60,000	60,001	0.35

Source: EITD (2022)

The EITD contains data points in both 1999 and 2003, and we see that by 2003 there was a reform to the PIT structure. However, we also know that in 2003 a major reform was announced in Proclamation No. 179. Given that the most recent reform to PIT structure in Ethiopia prior to 1999 was 1995 and the next one observed after 2003 was in 2017, there is little reason to believe that there would have been a further reform between 1999 and 2003. Moreover, Ethiopia was not experiencing a period of high inflation at this time, so it would be less likely that it was a period of frequent reform. Given the information at hand, we are reasonably confident with the approach of imputation in such cases (i.e., where the next available data point coincides with a reform).

Regarding employee SSCs, a large number of countries covered in the EITD allow for these to be deducted from gross employment income, before calculating income tax liability. In cases where we did not find information on whether SSCs were deductible, we assume that they are not. Again, this information is captured under the 'Country notes', allowing users to either relax this assumption or disregard such observations in their analysis.

Notwithstanding the above limitations regarding data gaps, the data is further limited by its scope. We focus solely on the taxes levied on earnings from employment. The EITD does not contain information on taxes that apply to self-employment or business income. Similarly, there is no information on the taxes levied on non-resident employee earnings, which can often differ from those levied on domestic workers. The temporal coverage of the data was dictated primarily by availability and ease of access to underlying data; prior to the mid-1990s, data on many countries is difficult to locate and verify.

2 Country notes

This section provides country-by-country notes on the data contained within the EITD. These are included in order to guide users on the interpretation, understanding and use of the EITD. The notes contained herein complement those present within the dataset itself, however we advise that users consult both sources concurrently in order to gain a comprehensive understanding of how employment earnings are taxed in each country. The notes are compiled according to our best interpretation and understanding of the underlying source material.

Algeria

The tax referred to in the EITD is the ***Impôt sur le revenue global des personnes physiques*** **(IRG)**.

An abatement exists in Algeria and is credited at the rates shown in the EITD.

Employee SSCs are deductible from gross income. SSC data was missing in 1996, 2000–2002 and 2004.

Angola

The tax schedule included in the EITD is the ***Imposto sobre os rendimentos do trabalho*** **(IRT)**. Specifically, the schedule applies to 'Group A' earners (i.e., income earned by employees).

Data for the period 1995–1999 is incomplete. Data on rates and thresholds exists for 1995–1998 in the Coopers and Lybrand *International tax summaries*, however they are listed in novo kwanza (NKZ) and kwanza reajustado (KZR) for 1995–1996 and 1997–1998 respectively. It was not possible to reconcile the listed data with what followed later, which is denoted in second kwanza (AOA). Therefore, for 1995–1998 we include the rates but leave the values for lb and ub empty.

Employee SSCs are tax deductible. Data on SSCs pre-2000 is missing.

Benin

The tax schedule included in the EITD is the ***Impôt progressif sur les traitements et salaires*** **(IPTS)**.

There is no information for 1995. The source for 1996 (ORDONNANCE N° 1996-02 DU 31 JANVIER 1996) is, we believe, the legislation establishing the IPTS for the first time. Thus, we believe that any employment income earned prior to 1996 was taxed according to the *Impôt général sur les revenus* (IGR). However, it was also not possible to access a source outlining the IGR rates applicable in 1995.

A reduction in the tax liability (i.e., amount of tax owed) for dependents is allowable according to the scale included in the EITD.

Employee SSCs are not tax deductible.

Botswana

The income tax system referred to is **Personal Income Tax.**

There are no compulsory employee SSCs in Botswana.

Burkina Faso

The income tax system referred to is the ***Impôt unique sur les traitements et salaires*** **(IUTS).**

Reductions to taxable income are allowed, according to the number of dependents. Data on these allowances is missing for the years 2015–2017.

Employee SSCs are not tax deductible.

Burundi

The tax schedule included in the EITD is the ***Impôts sur les revenus professionnels*** **(IRP).**

The regime in place between 2005 and 2012 capped the tax payable at 35% of gross income. We have no evidence that this restriction applied pre-2005. Post 2012, the highest marginal rate is 30% and so the restriction would no longer be applicable.

There was a reform to the rate schedule of the IRP in either 2003 or 2004. The 2002 and 2004 IMF Statistical Appendices show different rates. It is not known whether the new rate schedule came into place in 2003 or 2004. Based on the low likelihood that the tax schedule was reformed two years in a row (as there was a subsequent reform in 2005), we assume that this reform came into place in 2003.

To the best of our knowledge, the BIF1,350 allowance for dependent children was scrapped with the 2013 reform.

Employee SSCs are tax deductible.

Cabo Verde

The income tax referred to is the ***Imposto único sobre rendimentos*** **(IUR)**.

No information was available on the IUR schedule in either 1995 or 2005–2008. Various allowances and deductions are applicable – information on many of these is missing for the years 2009–2014, although it is possible that they were not present (a radically different IUR schedule – with 53 rates and bands – was present during this period). During this period, a 0% IUR band existed, however some of the consulted sources also make reference to a tax-free allowance of CVE200,000. It is highly unlikely that these existed concurrently, so we have removed the CVE200,000 allowance, but left it blank as an indication of the uncertainty surrounding this.

Employee SSCs are tax deductible.

Cameroon

The income tax system included in the EITD is the ***Surtaxe progressive*** (1995–2002), followed by the ***Impôt sur le revenu des personnes physiques*** **(IRPP)**, from 2003 onward.

Between 1995 and 2002, a surtax of 6.6% of taxable income, the ***Taxe proportionate sur les traitements et salaires***, was levied. This was replaced in 2003 by a surtax of 10% of the amount of tax owed under the IRPP.

A XAF500,000 deduction is allowed for all taxpayers. This operates as a de facto XAF500,000 zero rate, but the EITD lists the lowest rates as found in the tax laws (10%, rising to 11% in 2020).

Employee SSCs are tax deductible.

Central African Republic

The income tax system referred to is the ***Impôt sur le revenu des personnes physiques* (IRPP)**.

Underlying source data shows that in either 1998 or 1999, the top 55% band was removed (although the rest of the tax schedule was left unchanged). It is unclear exactly when this occurred (as no data was available for 1998 or 1999). We impute here and assume the change to have taken place in 1999, however users should take caution when using this data as it may have been removed in the prior year.

The source data does not provide sufficient information to allow for a full presentation of how family shares are incorporated into the dependent allowances.

In the years 1995–2012, a surtax of XAF1,500 per year was levied on all taxpayers.

Employee SSCs are tax deductible. A reform to reduce the employee SSC rate occurred in either 2010 or 2011, however due to insufficient information it is not possible to pinpoint exactly when this was enacted. We thus leave blank the SSC information for 2010.

Chad

The tax schedule referred to in the EITD is the ***Impôt sur le revenu des personnes physiques* (IRPP)**.

A family split/share system was in place until 2017 when, to the best of our understanding, this was replaced by a deduction of XAF60,000 per year per child.

Employee SSCs are not tax deductible. Earning ceilings exist and are detailed in the EITD.

Comoros

The income tax referred to in the EITD is the ***Impôt general sur le revenu* (IGR)**.

There have been – to the best of our understanding – no reforms to the IGR since law L. n° 94-043/AF. Prior to this, the IGR schedule included 10 progressive bands. These are listed in *Comoros: recent economic developments* (1994).

The only data available for employee SSCs is in 2020, and we assume these are not tax deductible. It is unclear when this came into effect.

Côte d'Ivoire

There are numerous taxes levied on employment earnings (or wages and salaries) in Côte d'Ivoire.

These are:

1. Salary tax (IS)

We code the **Salary tax (IS)** as a surtax in the EITD and this is charged at 1.5% of 80% of gross income.

2. National contribution (CN)

The **National contribution (CN)** is levied on 80% of gross income and is levied as follows (unchanged 1995–2019):

CN = ((80% * Gross Income)* r) – 'Variable'

lb	ub	r	'Variable'
–	600,000	0	0
600,000	1,560,000	1.5%	9,000
1,560,000	2,400,000	5.%	63,600
2,400,000		10%	183,600

Note: The CN is not coded in the EITD.

3. *Impôt général sur le revenu* (IGR)

The schedule of rates and bands shown in the main EITD 'Africa' sheet pertains to the ***Impôt général sur le revenu*** (**IGR**). To the best of our knowledge – and reflective of underlying source material – this schedule has not been reformed since at least 1997, if not before. There is some disparity amongst underlying sources as to what this schedule looks like exactly. It is printed differently in PwC's *Individual taxes worldwide summaries* compared to the 1997 *Code général des impôts*. We adopt the more straightforward approach as set out in the latter. The only source available pre-1997 is the Coopers and Lybrand *International tax summaries*, which presents the same schedule as PwC (and indeed reflects the same schedule reported by PwC today). Whilst this suggests that we could reasonably assume that the rates present in 1995 and 1996 are the same as those presented in the 1997 *Code général des impôts*, we err on the side of caution and leave it blank. Consequently, there is a degree of uncertainty over the IGR calculations and whether the schedule as shown in the EITD is accurate.

A formula is applied to calculate the IGR liability. IS and CN are deductible from tax liability.

Tax liability is reduced according to the 'part' system, allocated to dependents up to a maximum of five parts. Parts are allocated as follows:

- A single, divorced or widowed individual with no children: 1 part
- Married individuals with no children, or single/divorced individuals with one child: 2 parts
- Each additional child: 0.5 parts

4. *Contribution nationale de solidarité* (CNS; 1995–2004) replaced by the *Contribution pour la reconstruction nationale* (CRN; 2005–2009).

The ***Contribution nationale de solidarité*** **(CNS)** was levied on 1% of gross income, whilst the ***Contribution pour la reconstruction nationale*** **(CRN)** was levied as follows:

lb	ub	r
0	100,000	0%
100,001	600,000	1%
600,001	1,500,000	1.5%
1,500,001	3,000,000	2%
3,000,001	+	2.5%

Neither the CNS nor CRN are coded in the EITD. They are not deductible from the IGR base.

Employee SSCs, under the *Caisse nationale de prévoyance sociale* (CNPS) are also levied. These are not, to the best of our knowledge, tax deductible. The years 2001 and 2002 are left blank due to the uncertainty of reform dates.

Congo, Republic of the

The income tax referred to in the EITD is the ***Impôt sur le revenu des personnes physiques*** **(IRPP)**.

There is a discrepancy in IMF sources between 2000 and 2002, which list ub1 as XAF265,000, whilst earlier and later sources (Coopers and Lybrand *International tax summaries* and later IMF reports respectively) describe the same schedule, with ub1 listed as XAF200,000. We thus interpret this to be a mistake in the 2000 and 2002 IMF sources and correct accordingly. It is somewhat unlikely – although not impossible – that the first tax threshold was changed and then reversed.

IMF sources between 2001 and 2004 also list r1 as 0%, whilst earlier and later sources describe the same schedule, with r1 listed as 1%. It seems unlikely that both a standard 20% deduction (as described below) and a zero rate would apply to gross income (although it is observed, at times, in other jurisdictions). It also seems unlikely that a 0% rate would be introduced and subsequently removed. Therefore, we assume this to be a mistake and insert r1 as 1%, following preceding and following years.

A 20% deduction to gross income is applicable in determining taxable income. To the best of our knowledge this is present for all years contained in the EITD.

Employee SSCs are tax deductible.

Democratic Republic of the Congo

The income tax referred to is the ***Impôt professionnel sur les rémunérations* (IPR)**.

Between 1995 and 1999 we leave the tax thresholds blank due to two currency changes and high inflation in this period, however we are reasonably confident that the rates shown are correct.

The total IPR amount owed by an individual may not exceed 30% of earnings (2002–2020). This was previously capped at 50% and 35% – see the EITD for details.

Reductions to the IPR are allowed per dependent, subject to some restrictions.

Employee SSCs are tax deductible.

Djibouti

The tax referred to is the ***Impôt revenue de solidarité sur les revenus et les bénéfices.***

Between the years of 2001 and 2008, we have no information on whether a tax-free allowance existed. It is highly likely that it did, but the first source referencing this is the 2009 *Code général des impôts*. We therefore leave this field blank.

A surtax existed between the years of 1995 and 2000. This was levied at 10% 1995–1998, reduced to 8% for 1999 and 2000, on taxable incomes up to up to DJF720,000 per year. Whilst we are somewhat uncertain, we are reasonably confident that this was removed as part of the 2001 reform to PIT.

Employee SSCs are not tax deductible. An additional 2% 'medical insurance levy' was introduced in 2015, and an earnings cap was introduced from 2016 onward at DJF400,000 per year. From 2018 onward, a minimum earnings limit (floor) is also referenced. It is not clear if this came into place at the same time as the maximum.

Egypt

For 1995, we know that the top rate was applied at 22% on employment incomes over EGP3,840 per year. The underlying source suggests that there are progressive rates up to this threshold, but they are not listed.

A personal allowance exists and is applied as detailed in the EITD.

Since 2005, Egypt has, concurrently, had a 0% tax band and personal deduction/allowance. It is unclear how exactly these interact, but to the best of our understanding the 0% band begins *after* the application of the personal allowance.

Discounts (credits) are applied to tax due. Between 2017 and 2020, tax credits are applied on the highest income bracket of the taxpayer. The tax due is calculated and then a discount applied as follows:

- For those earning in the second band: 80% discount on tax payable.
- For those earning in third band: 40% discount of tax payable.
- For those earning in the fourth band: 5% discount of tax payable.
- No discount is provided for those earning in the fifth band.

There is no evidence that this system of credits was in place prior to 2017.

Surtaxes are applied as follows:

- 1997–2004: 2% on annual income exceeding EGP18,000.
- 2014–2016: 5% of taxable income exceeding EGP1,000,000.

Employee SSCs are deductible from gross income. Data is missing on the rates and thresholds for a number of years.

Equatorial Guinea

The tax schedule referred to in the EITD is the ***Impuesto sobre la renta de las personas físicas***.

Employee SSCs are not tax deductible.

Eritrea

The tax referred to is the **Income tax on employment.**

Whilst data is fairly scant on Eritrea, a recent report from ENS Africa suggests that no reforms have taken place to PIT rates and bands since at least 2002. It might be the case that allowances, credits or deductions have been applied in the interim, but there is no evidence for this.

We know that the schedule changed at some point between 1999 and 2002, however the exact timing of reform is uncertain.

There are no compulsory SSCs in Eritrea.

Eswatini

The tax schedule referred to in the EITD is the **Personal Income Tax**.

The reform in 2005 removed the zero rate and instead implemented a universal tax credit/rebate.

Employee SSCs are levied at 5% of gross income and are not tax deductible. Monthly earnings ceilings exist and are detailed in the EITD, where available. Note that these rates refer to the Eswatini National Provident Fund. Other sources (such as PwC) suggest that there are no mandatory SSCs in Eswatini.

Ethiopia

The tax referred to is the **Income tax on employment.**

Between fiscal year (FY) 1998/9 and FY 2002/3 no evidence of reform was found in underlying source material. We therefore assume that the 1998/9 rates remained in place until Proclamation No. 179 came into force in 2002/3.

Employee SSCs are not tax deductible.

Gabon

The income tax referred to is the ***Impôt sur le revenu des personnes physiques* (IRPP).**

The computation of the IRPP liability is not straightforward, as the family quotient (part/share) system is in place. To the best of our understanding, a change in the formula used to calculate tax accompanied the 2010 IRPP reform. Details are provided in the dataset.

There is some ambiguity in underlying sources over whether employee SSCs are tax deductible, but we are fairly confident that they are not. They are levied at 2.5% of a gross salary limit of XAF18,000,000 per year.

As of 2015, contributions to the *Caisse nationale d'assurance maladie et de garantie sociale* (CNAMGS) were levied at 1% of a gross salary limit of XAF30,000,000.[6]

The **Complementary tax on wages** is coded as a surtax in the EITD and is levied as follows (graduated):[7]

- 1995–2009
  - 1% for taxable income up to XAF1,200,000 per year
  - 5.5% for taxable income of XAF1,200,000 per year and above
- 2010–2020
  - 5% of taxable income above XAF1,800,000, 0% below
  - Only levied on annual incomes > 1,800,000 per year after deduction of SSC.

The Gambia

The tax schedule referred to in the EITD is the **Individual income tax.**

Employee social security contributions are levied at 5% of gross income and to the best of our understanding are not fully tax deductible, however a number of sources suggest that contributions to approved pension schemes can be deducted, up to a maximum of the lesser of 25% of taxable employment income or a fixed sum (listed as GMD7,500 in 2013 and GMD24,000 in 2019, but missing in other years). We thus assume that SSCs are not tax deductible in the absence of full information.

Ghana

The tax schedule referred to in the EITD is the **Individual income tax.**

Prior to 2007, the underlying source material lists the tax amounts and thresholds in new cedi. We convert all of this older data to Ghana cedi by dividing by GHC10,000.

At times, reforms to the PIT do not correspond exactly to the fiscal (calendar) year or there are two different systems in place during any one fiscal year. The 'period' variable in the EITD provides further details here.

Employee SSCs are tax deductible in Ghana.

6 The Ernst & Young source for 2014 the employee CNAMGS contribution was 2.5%, but this is not verifiable elsewhere.
7 According to the 2003 PwC source, the Complementary tax on wages is deductible in determining taxable income for the IRPP, however this was not noted in other sources; we thus assume that it was not deductible throughout.

Guinea

The tax schedule in the EITD refers to the ***Retenue a la source sur traitements et salaires* (RTS).**

Data on rates and thresholds was unavailable in 1995 and 1996. Note that in the years 1997–2010, a digressive top rate of 5% existed on incomes over GNF5,000,00 per year.

Employee SSCs are tax deductible.

Guinea Bissau

The tax schedule referred to in the EITD is the ***Imposto professional.***

Data is missing for many years.

Note that a formula is required to apply the tax rates in the years 2018–2020. It is uncertain whether this was present for the duration of the system brought into place in 2013. We assume not, as there was no evidence of this in the law outlining the introduction of this system.

The only data points for which we have information on employee SSCs are 2019–2020. The rate is 8% of gross income, not tax deductible.

Kenya

The tax schedule included in the EITD pertains to the **Personal Income Tax**.

A universal tax credit is applicable, and the amounts are listed in the EITD.

Employee National Social Security Fund (NSSF) contributions are levied at 5% of gross income pre-2015 and 6% post 2016. Gross income ceilings exist as outlined in the EITD.

The NSSF Act 2013, Section 67 outlines that the contributions are tax deductible. This is incorporated as of 2015 (FY 2014/15) in the EITD. National Hospital Insurance Fund (NHIF) contributions (in place since 1999) are charged at lump-sums according to gross income. These rates were reformed in 2015. Rates are not included in the EITD.

Lesotho

The tax schedule included in the EITD is the **Income tax on individuals**.

For the year 2005 (FY 2005/06), we impute the reform to tax schedule. There are differing rates listed in 2003 and 2005, but no source is available in 2004, in which the reform may well have taken place.

The personal allowance present in 1994–1996 was replaced by a universal tax credit. However, to the best of our understanding, both existed in 1996 (FY 1996/97). All amounts are shown in the EITD.

No mandatory employee SSCs exist in Lesotho for the period 1995–2020.

Liberia

The tax schedule included in the EITD pertains to the **Personal Income Tax.**

A tax-free allowance of L$1,00 was in place in the years 1999–2000 but scrapped thereafter.

A surtax exists as follows:

1999 to July 2001:

lb	ub	r
0	2,400	1%
2,401	6,000	4.5%
6,001	12,000	7.5%
12,001	+	8%

Employee SSCs are not tax deductible.

Libya

The tax schedule incorporated in the EITD is the **Tax on wages and salaries**.

In the years 1995–1998 (and possibly later, although data is missing for 1999–2003 in the EITD), wage earners were also liable to pay the general income tax. This is not included in the EITD but is levied as follows:

1995–1996

lb (LD)	ub (LD)	r
-	4,000	0%
4,001	7,000	15%
7,001	12,000	25%
12,001	20,000	35%
20,001	35,000	45%
35,001	60,000	55%
60,001	100,000	65%
100,001	+	90%

Source: Coopers and Lybrand *International tax summaries* 1995

1997–1998

lb (LD)	ub (LD)	r
-	6,000	0%
6,001	9,000	15%
9,001	14,000	25%
14,001	22,000	35%
22,001	37,000	45%
37,001	62,000	55%
62,001	102,000	65%
102,001	202,000	75%
202,001	+	90%

Source: Coopers and Lybrand *International tax summaries* 1997

The source suggests that the general income tax is levied on all individual income (including salaries) after deducting personal income tax. It is thus – to the best of our understanding – levied on employment income net of the tax on wages and salaries.

Surtax: **Jihad Tax**. Levied on taxable income as follows:

1995–2020:

- 1% if annual income ≤ LD600
- 2% if LD601 > annual income ≤ 1,200
- 3% if annual income > 1,200.

In addition, in the years 2004–2020, 1% of gross income is owed to a solidarity fund/social unity fund.

Employee SSCs are deductible from taxable income and levied at the following rates:

- 1995–1998: 3.75%
- 2004–2020: 5.25%.[8]

There is reference made in 2019 (www.ssa.gov) to minimum and maximum thresholds for contribution purposes but these are not fully stated, nor are they present in earlier years or other sources.

Madagascar

The tax schedule included in the EITD is the ***Impôts sur les revenus salariaux* (IRSA)**.

Note that the raw data for 1995–2004 was in Malagasy francs, which we have converted to ariary at a rate of 5:1.

Minimum tax rates exist since at least 2001–2008. The value for r1 is unknown for 1999 and 2000. For the year 2008, a schedule exists within r1. This is detailed in notes_general.

Employee SSCs (*Caisse Nationale de Prévoyance Sociale*; CNAPS) were levied at 1% of gross income from 1995 to 2000, subject to maximum earnings ceilings. A second mandatory contribution (*Organisation Sanitaire Tananarivienne Inter Entreprises/ L'Association Médicale Interentreprises de Tananarive*; OSTIE/AMIT) has been levied from 2008 onward, with no maximum earnings ceilings until 2015, after which the same ceiling applied to both contributions. The ceilings are detailed in the EITD notes but are missing for a number of years.

Malawi

The tax schedule referred to in the EITD is the **Individual income tax**.

Between the years of 1995 and 1999, a surtax was present as follows:

From	To	Rate
0	6,000	0%
6,001	18,000	1%
18,001	42,000	2%
42,001	+	3%

No mandatory employee SSCs are present in Malawi.

Mali

The income tax referred to in the EITD is the ***Impôt général sur le revenu* (IGR)** between 1995 and 2008 followed by the ***Taux de l'impôt sur les traitements et salaires* (ITS)** in later years.

The r2 variable is unknown between the years of 2006 and 2013. We know that it changed at some point during this period but it is unclear when. It is therefore left blank.

Employee SSCs are not tax deductible. Earnings thresholds apply to the contribution charged at 3.6% (not the one charged at 3.06%). These are listed in the EITD but are unknown in some years.

Mauritania

The tax schedule referred to in the EITD is the ***Impôt sur les traitements et salaires* (ITS).**

A personal allowance has been granted from 2004 onward; this was not – to the best of our understanding – in place in earlier years, when a zero rate was part of the tax schedule.

Employee SSCs are not tax deductible.

---

8 Some sources suggest that the rate remained at 3.75% throughout, however www.ssa.gov states that there is a 1.5% contribution for sickness and maternity, in addition to the 3.75% for old age, disability and survivors (see, for example, the 2011 entry: www.ssa.gov/policy/docs/progdesc/ssptw/2010-2011/africa/libya.html).

Mauritius

The tax schedule referred to in the EITD is the **Individual income tax.**

Education and disability allowances exist beyond the allowances for dependents, which are outlined in the EITD. The education and disability allowances are outlined in the referenced Ernst & Young tax guides.

A surtax, levied at 5% of taxable income, is present in the years 2019 and 2020.

Employee SSCs are not tax deductible.

Morocco

The tax schedule included in the EITD is the ***Impôt général sur le revenu*** **(IGR).**

Employee SSCs are tax deductible. Various income floors and ceilings exist, although are not applicable to the additional 2% levied from 2007 onward.

Mozambique

The income tax referred to in the EITD is the ***Imposto sobre os rendimentos do trabalho*** until 2002, after which the ***Imposto sobre o rendimento das pessoas singulares*** (**IRPS**) was introduced.

Data for 1995–1998 was converted into new metical (MZN) at a rate of 1,000:1.

For the years 1999–2002, we find no evidence that a tax-free allowance was in place. As a zero band was present in these years, we assume that both did not exist concurrently.

It is not known whether dependent allowances – present in the EITD as of 2008 – were part of the initial IRPS, introduced in 2003.

Employee SSCs are tax deductible. Prior to 2006, it is not known whether the SSC was not present or simply missing in underlying data sources. It is accordingly left blank.

Namibia

The tax schedule referred to in the EITD is the **Individual income tax.**

A 'primary abatement' of N$10,000 was allowed in the year 1995. Some sources suggest that this persisted into 1996, however the accompanying reform to the tax schedule shows the presence of a 0% band up to N$15,000, so we thus judge it unlikely that the primary abatement and the 0% band coexisted.

Employee SSCs are not tax deductible.

Niger

The tax schedule referred to in the EITD is the ***Impôt unique sur les traitements et salaires*** **(IUTS).**

Employee SSCs are tax deductible. The contributions are subject to earnings floors and ceilings, which are detailed in the EITD.

Nigeria

The tax schedule referred to in the EITD is the **Personal Income Tax**.

Personal allowances in Nigeria are calculated as follows:

- 1995–1997: earned income × 0.15 + N3,000
- 1998–2011: earned income × 0.20 + N5,000
- 2012–2020: the higher of N200,000 or 1% of earned income + 20% of earned income.

Since at least 2001, a minimum tax has applied to employment income. This was fixed at 0.5% of earned income from 2001–2011 and 1% thereafter. The minimum tax rate applies even if allowable deductions take the calculated tax liability below.

As of 2014, all individuals earning more than N3,000 per month (N36,00 per year) are required to pay 2.5% of earned income in National Housing Fund contributions. These are coded in the EITD as a surtax, although they are listed under 'social contributions' in some sources.

Employee SSCs are not tax deductible.

Rwanda

The tax schedule referred to in the EITD is the **Individual income tax.**

Employee SSCs are not tax deductible.

São Tomé and Príncipe

The tax schedule referred to in the EITD is the ***Imposto sobre salarios*** (1995–2008) and the ***Imposto sobre o rendimento de pessoas singulares*** **(IRS)** (2009–2020).

Abatements are allowed at each tax band; these do not always sum to the cumulative tax owed on lower bands.

A minimum tax of STD300,000 is in place as of 2017.

Employee SSCs are tax deductible.

Senegal

The tax schedule referred to in the EITD is the **General income tax.**

A part/family share system is in place in Senegal.

To the best of our understanding, until 2013, employees in Senegal were liable to pay both the general income tax and the ***Impôt sur le revenu des personnes physiques*** **(IRPP)**, a proportional tax on employment. The IRPP is coded as a surtax in the EITD.

IRPP rates were as follows:

- 1994–1998: 14% of wages above 600,000
- 1999–2012: 11% of wages above 600,000.

Since 2013, a flat deduction for 'retirement contributions' is applied to gross income before applying the schedular rates. This is set at 30%, up to a ceiling of XOF900,000 per year. This coexists with a zero rate.

Employee SSCs are not tax deductible. Floors and ceilings on earnings exist for contribution purposes and these are detailed in the EITD, where available. To the best of our understanding, floors did not exist prior to 2015.

Sierra Leone

The tax schedule referred to in the EITD is the **Employment income tax.**

Data is missing for 1996 and 1998.

Employee SSCs are tax deductible.

Somalia

The tax schedule referred to in the EITD is the **Personal Income Tax.**

The most recent budget document available is for 2018 and we thus assume no revisions have been made to the PIT schedule in either 2019 or 2020.

No evidence was found of mandatory employee SSCs in Somalia.

South Africa

The tax schedule referred to in the EITD is the **Personal Income Tax**.

Taxpayers are allowed a primary, secondary or tertiary rebate (tax credit), depending on their circumstances.

There are no mandatory state SSCs in South Africa, however the rates included in the EITD pertain to the Unemployment Insurance Fund (UIF) levied at 1% of gross income and subject to earnings ceilings (detailed in the EITD).

South Sudan

The tax schedule referred to in the EITD is the **Personal Income Tax**.

Employee SSCs are tax deductible.

Sudan

The tax schedule referred to in the EITD is the **Personal Income Tax**.

Information on employment income taxes in Sudan is scant. Data on the PIT schedule is only relatively complete for the years 1995–1999, 2010 and 2019.

Employee SSCs are not tax deductible.

Seychelles

The tax schedule referred to in the EITD is the **Personal Income Tax**.

No tax on employment income existed in the Seychelles prior to 2009. A flat PIT was introduced in FY 2008/9. This was replaced in FY 2016/17 with a progressive income tax. Note that a formula was introduced for the second tax band in FY 2016/17–2017/18.

Employee SSCs are not tax deductible.

Tanzania, United Republic of

The tax schedule referred to in the EITD is the **Personal Income Tax**.

Employee SSCs are tax deductible. A range of different contribution options are available in Tanzania, however those included in the EITD are the Provident Fund in earlier years and the National Social Security Fund (NSSF) thereafter, levied at 10% of gross income. Others are levied at lower rates.

Togo

The tax schedule referred to in the EITD is the ***Impôt sur le revenu des personnes physiques* (IRPP).**

In the years 1995–2008, a formulaic deduction to gross income is applied, before further deductions for dependents (see the EITD for details). In the years 2009–2012 the system of family allowances is unknown, whilst for 2013 onward, lump-sum deductions are allowed for each dependent.

Employee SSCs are not tax deductible. Reference is made in underlying sources for 2019 to an earnings floor for contributions purposes, but no reference to this was found in previous years.

Tunisia

The tax schedule referred to in the EITD is the ***Code de l'impôt sur le revenu des personnes physiques et de l'impôt sur les sociétés*** **(CIRPPIS).**

Whilst no changes to the CIRPPIS rates and bands are noted between 1995 and 2015, it is not known whether the system of dependent allowances existed pre-2006. It is likely that they did, in some form, however this was not verifiable in any underlying source.

Employee SSCs are tax deductible.

Uganda

The tax schedule referred to in the EITD is the **Personal Income Tax**.

Employee SSCs are levied at 5% of gross income and are not tax deductible.

Zambia

The tax schedule referred to in the EITD is the **Personal Income Tax**.

Data for 1995–2012 has been divided by 1,000 to align with the new kwacha.

Underlying sources show that a tax credit was in place for the years prior to 1999. Whilst no sources confirm its existence in 1999–2001, we tentatively assume that it remained in place, before the introduction of a 0% PIT rate in 2002.

Employee SSCs are tax deductible. They are subject to earnings ceilings, as detailed in the EITD.

Zimbabwe

The tax schedule referred to in the EITD is the **Personal Income Tax**.

Note that the data for Zimbabwe is very unreliable during the years of the hyperinflation crisis. At this time, the PIT schedule was being revised at least monthly. All data for 2004–2009 is thus deemed to be particularly unreliable. Extreme caution is urged when employing this data for research as it is highly likely to be inaccurate.