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Tax Mix, Tax Reform and Economic Growth in Morocco: A Quantitative Analysis

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Abstract

The current economic situation and its effects on the situation of public finances thus place the tax system, even more than before, at the heart of economic and social policy debates. This debate can only be fruitful and lead to relevant recommendations on the basis of a global diagnosis of this system, both in terms of its structure and legislative construction, as well as in terms of its day-to-day practice and management by the administration and taxpayers, and its perception by all parties concerned. The aim is to establish a fairer tax system in which each taxpayer pays his taxes according to his ability to pay and an effective tax system to promote economic growth.

Keywords

tax mix, economic growth, tax reform, fiscal mix index

1. Introduction

In the economic context of our country, today's tax issues can be framed as follows: (i) How can government revenues be increased without harming, or with as little harm as possible, to economic growth? (ii) Can social equity and economic efficiency be reconciled through the revision of tax rates? (iii) How can the desired progressiveness of the tax system be ensured and the tax base of all taxes be broadened? (iv) Can the overall rate of tax pressure recorded per tax be considered sustainable? (v) Is it possible to develop a tax policy that promotes economic growth and how? In other words, what tax system seems to provide an incentive to work, save, invest and thus accumulate capital? And (vi) What types of tax incentives should be put in place to improve total factor productivity (TFP), stemming from improvements in the quality of human capital, innovation and scientific research?

In short, the aim is to establish a fairer tax system where each taxpayer pays taxes according to his or her ability to pay and an efficient tax system to promote economic growth.

An overall assessment is also made of the preliminary arguments put forward in favor of a shift in the tax mix towards consumption taxes instead of taxes on the income of factors of production, which are (i) incentives to work, save and invest and tax compliance and (ii) the less harmful nature of consumption taxes on economic growth compared to taxes on the income of factors of production.

This note begins with an analysis of the impact on economic growth of a reduction in the use of one tax in favor of another, or what is commonly referred to as the "tax mix".

According to economic theory, all taxes, with the exception of flat taxes, create distortions that can manifest themselves, among other things, in a lower rate of economic growth. In an environment of scarcity of budgetary resources and the growing need to finance public spending, the question of the structure of taxation becomes paramount. In the context of tax system reforms, policymakers are interested in knowing the types of taxes that are least unfavorable to economic growth. International organizations (e.g., the OECD) on the basis of a number of studies are advocating reforms to replace income tax revenues with revenues from consumption and wealth taxes. In fact, some countries have made tax reforms in this direction.

Our paper is a contribution to this debate on the tax structure and per capita income. In our work, the tax structure is summed up by the ratio of indirect tax revenues to direct tax revenues.

Moreover, this note will be structured as follows. The first point presents literature review. Second is dedicated to the Overview of the Moroccan tax system. The third has the empirical econometric models in data of panel and the results of estimate considering the theory remains ambiguous on the effects of these aspects. The last point makes recommendations for a tax system with the service of the economic growth.

2. Literature Review

The empirical literature on the link between fiscal policy and economic growth is particularly interested in two issues. The first relates to the link between the total level of tax revenues (Easterly & Rebelo, 1993; Felster & Henrekson, 2001)) or public spending (Grier & Tullock, 1987; as well as Barro, 1990, 1991) on the one hand and per capita income on the other side. The second question concerns the link between the tax structure and per capita income and/or economic growth. The literature on this second issue is less dense and includes more recent work. The debate focuses in particular on the type of direct or indirect taxes that are conducive to economic growth. Some work goes so far as to establish a hierarchy of taxes that are least unfavourable to growth.

Rather than reviewing the full literature on this issue here, this section focuses on a selection of research that links economic growth performance to budgetary variables.

Early studies showed a link between fiscal structure and economic growth. These studies used traditional regressions such as OLS panel data. They assumed identical slopes for all countries in the growth equation.

Kneller et al. (1999) show that taxes that have a distortive effect (income and property taxes) reduce

economic growth and that taxes that do not have this effect (consumption taxes) do not reduce economic growth.

Widmalm (2001) analyzes the effects on economic growth of changes in the tax structure for an unchanged level of revenue. His work covered 23 OECD countries over the period 1965-1990. It concludes, on the one hand, that the proportion of tax revenues from the taxation of personal income is negatively correlated with economic growth and that, on the other hand, consumption taxes are favourable to economic growth.

Arnold (2008) introduced tax structure indicators in a set of growth regressions per panel for a sample of 21 OECD countries over the 1971-2004 period and found that property taxes are most favourable to followed by consumption taxes, followed by personal income taxes.

Szarowska (2013) applied a regression analysis in annual panel data for EU-24 Member States during the period 1995-2010. Panel regression and Pairwise Granger Causality Tests are used as the main method of research. She has seen a positive and statistically significant effect of consumption taxes on GDP growth. She concludes to a statistically significant positive effect of consumption taxes and negative effect of labour taxes on GDP growth.

Contrary to these results, Xing (2011) using Panel data for 17 OECD countries over the period 1970-2004 does not find a robust ranking of different types of taxes based on their "effects on growth". In particular, the author finds no compelling evidence in favour of consumption taxes over income taxes, nor personal income taxes in relation to corporate income taxes. The only robust result appears to be that transfers of tax revenues to property taxes are associated with a higher level of per capita income over the long run.

Bernardi (2013) conducted an aggregate analysis of tax trends in euro area member countries (EA-17) and a country-by-country disaggregated analysis for the period 2000-2014. He found that the gains from a tax transfer (from direct taxes to indirect taxes) do not appear to be as simple as previous research claimed.

Tanchev (2016) conducted an econometric study using the OLS method to assess the impact of personal income tax on economic growth in Bulgaria for the period 2004-2012, and found proportional relationship between progressive taxation and economic growth.

Baiardi et al. (2019) believe Arnold et al. (2011) impose significant unjustified restrictions on coefficients in their regressions. At first they use the same sample as Arnold et al. (2011) to replicate the short-term results that did not appear in Arnold et al. (2011). They confirm the long-term negative link between tax revenues and GDP but do not find the link between the tax structure and the long-term pib. The authors then extend the sample to 34 OECD countries for the period 1995 and 2014 to include the effects of the economic crisis. Their results do not confirm either the negative relationship between tax revenue sparing and GDP per capita or the positive relationship between the indirect/direct revenue ratio and the per capita GDP.

3. Moroccan Tax System: Current Situation

Since the middle of the Eighties, in practice, the Moroccan taxation entered a reform process continuous. These reforms are installation with an aim of carrying out a better effectiveness and a harmonization with the international standards. The awaited key objective of these reforms is the development of a system tax modern, coherent, efficient and more equitable. However, these objectives were not achieved and the tax system lost of legibility. The multiple reforms led well off interpretation of the texts of tax revisions between the administration and the taxpayers. These continuous reforms made the taxation Moroccan, today, very complex for the private investors and constituted an obstacle with the expansion of their activity.

If it is allowed that the central role of the taxation is undoubtedly to generate, of the most neutral manner and with less possible distortions, receipts necessary to the budget of the State, the taxation can fulfill its budgetary role only if, at the same time it is not seen laying down other objectives, generally contradictory. The multiplication of the exemptions and the derogatory modes, for example, noted these last years in Morocco go against these principles. These tax incentives, indeed, can cause only distortion and ineffective allowance of the investments and the resources.

Moreover, it is noted that tax justice is absent since the weight of the taxation did not weigh in a way balanced on the taxpayers: the weight of the Corporation tax (IS) is supported by a minority of companies and the income tax (IR) rests primarily on the incomes in the form of wages in the formal sector.

This tax injustice appears in what follows (Source DGI and DEPF data (Table 1)):

- ✓ 82% of the receipts of the IS only come from the performance of 2% of the companies;
- ✓ 50 companies only pay half of the IS and 10% of companies pay 25% of the IS;
- ✓ 70% of the companies however declare deficits remains functional what indicates the existence of tax avoidance;
- ✓ 400000 companies contribute of approximately 800 million dirham's each year when the equivalent of 2% of the revenues from taxes;

Table 1. Tax Expenditure Granted to the Branches of Industry

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Real estate activities	**16.8**	**16.8**	**14.2**	**14.9**	**16.6**	**17.4**	**17.7**	**19.3**	**21.4**	**23.6**	**20.3**	**19.6**
Energy sector											**19.9**	**18.6**
Public services	9.6	7.3	7.3	6.9	6,0	6.2	7.6	7.7	9.3	9.7	-	1.1
Agriculture and fishing	**12.5**	**12.9**	**13.2**	**13.5**	**13.2**	**11.5**	**11.7**	**9.9**	**10.3**	**9.8**	**8.3**	**8.9**
Food industries	**8.1**	**8.7**	**8.2**	**7.8**	**8.2**	**7.8**	**8.6**	**8.3**	**8.3**	**8.6**	**5.6**	**5.4**
Measures benefiting all sectors	14,0	6.1	6.6	8.3	10.9	11.3	10.5	15.1	6.7	4.4	4.9	2.3

Them paid contribute of 73% of the receipts of total IR. The nonpaid natural persons (tradesmen, contractors exerting with in an individual capacity, liberal professions) contribute little;

Moreover, as it shows Table 2, the direct taxes composition and indirect taxes of the tax system knew a major change since 2010. The receipts under the indirect taxes became dominating compared to the receipts under the direct taxes. On the other hand, before 2010, in fact the direct taxes dominated the composition of the revenues from taxes.

Table 2. Index of Tax Proportioning in Morocco between 2007-2018

	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Direct taxes (DT) in millions of dirhams	**60 308**	**81 827**	**71 734**	**65 004**	**70 850**	**78 911**	**78 116**	**77 600**	**81 750**	**85 664**	**94 105**	**96 575**
Indirect taxes (IT) in millions of dirham	**52 151**	**61 568**	**58 185**	**66 767**	**71 783**	**75 094**	**75 551**	**76 345**	**80 843**	**85 400**	**89 743**	**94 267**
Tax mix index (DT/IT)	**1,2**	**1,3**	**1,2**	**1,0**	**1,0**	**1,1**	**1,0**	**1,0**	**1,0**	**1,0**	**1,0**	**1,0**

Indeed, the examination of the evolution of the revenues from taxes (Table 3) reveals a progression from one year to another, that is to say an average annual growth of 4.1% during the period 2010-2018, carried at the same time by the direct taxes and the indirect taxes, which recorded an average annual growth of 3,5% and 5,6% respectively.

Table 3. Evolutions of the Revenues from Taxes between 2007 and 2018

	2007	2008	2009	2010	2011	2013	2015	2016	2017	2018
Tax revenues	**135 204**	**167 276**	**150 853**	**154 005**	**163 586**	**174 901**	**184 735**	**194 132**	**207 545**	**216 351**
Direct taxes (DT)	**60 308**	**81 827**	**71 734**	**65 004**	**70 850**	**78 116**	**81 750**	**85 664**	**94 105**	**96 575**
Growth rate of direct tax		35,7%	-12,3%	-9,4%	9,0%	-1,0%	5,3%	4,8%	9,9%	2,6%
I.S (corporate income tax)	30 013	46 290	42 395	35 114	39 370	40 417	42 780	44 403	50 980	50 871
IS growth rate	0,0%	54,2%	-8,4%	0,0%	12,1%	-6,4%	3,7%	3,8%	14,8%	-0,2%
Share of corporate income tax in tax revenue	22,2%	27,7%	28,1%	22,8%	24,1%	23,1%	23,2%	22,9%	24,6%	23,5%
I.R (income tax)	28 009	33 312	26 728	26 928	29 121	34 088	36 540	38 661	40 275	42 029
I.R growth rate	0,0%	18,9%	-19,8%	0,7%	8,1%	2,0%	6,5%	5,8%	4,2%	4,4%
Share of income tax in tax revenue	20,7%	19,9%	17,7%	17,5%	17,8%	19,5%	19,8%	19,9%	19,4%	19,4%
Indirect Taxes (IT)	52 151	61 568	58 185	66 767	71 783	75 551	80 843	85 400	89 743	94 267
Growth rates of IT	0,0%	18,1%	-5,5%	14,7%	7,5%	0,6%	5,9%	5,6%	5,1%	5,0%
T.V.A. (value-added tax)	34 811	42 875	38 555	45 635	49 923	52 687	56 197	58 230	62 144	65 698

growth rate of value added tax	0,0%	23,2%	-10,1%	18,4%	9,4%	0,6%	7,1%	3,6%	6,7%	5,7%
Share of value added tax in tax revenue	25,7%	25,6%	25,6%	29,6%	30,5%	30,1%	30,4%	30,0%	29,9%	30,4%
Medium			25,6%							30,2%
T.I.C. (Domestic Consumption Tax)	17 340	18 693	19 630	21 132	21 860	22 864	24 646	27 170	27 599	28 569
growth rate of Domestic Consumption Tax		7,8%	5,0%	7,6%	3,4%	0,5%	3,3%	10,2%	1,6%	3,5%
Medium			6,4%							4,3%
Share of domestic consumption tax in tax revenues	12,8%	11,2%	13,0%	13,7%	13,4%	13,1%	13,3%	14,0%	13,3%	13,2%
Regular income	135 204	167 276	150 853	154 005	163 586	174 901	184 735	194 132	207 545	216 351
Share of tax revenue in ordinary revenue	86,2%	89,8%	87,4%	88,4%	85,1%	84,5%	85,5%	88,0%	88,7%	80,1%

Thus, the share of the revenues from taxes in the public revenue, bordered 85,5% between 2010-2018. This results, on the one hand, of the change of the structure of the GDP in connection with the emergence of dynamic sectors (construction industries, posts and telecommunications and activities financial and insurances), having recorded important rises of the profits, garnering for the Statement of important tax revenues. And in addition, of the reforms no matter what insufficient companies by tax matter Morocco, in particular, the widening of the taxability and the modernization of the public administration and the tax systems.

3.1 Direct Taxes

The direct taxes amounted to 96,6 billion dirhams in 2018 (Note 1), that is to say a rise of 2,6% compared to the previous year. This amount accounts for 35,7% of the revenues from taxes.

In terms of progression, the direct taxes fell under a bullish tendency since the years 2009. However, as from 2010, the direct taxes knew a clear deceleration of their growth rate, passing from 11,7% to 3,5% over the periods 2007-2009 and 2010-2018 respectively. This fall is justified by the difficult international conjuncture and its effects on the performances of Morocco, as well as a tax cut on the Companies and the refitting of the scale and the sections concerned with the Income tax by the finance laws of the last years.

The analysis of the two essential components of the direct taxes to knowing IR and the IS makes it possible to release the following results:

▪ Concerning the IS, average annual growth rate between 2007-2009 and 2010-2018 strongly dropped, passing from 22.9% to 4.4% respectively, under the effect of the reduction of the tax rate as well for the financial companies as for the companies not-financial.

On the other hand, with the title of 2018, the receipts of the IS exceeded for the first time those

recorded in 2017 and 2008 to be established to 51 billion dirhams.

In terms of contribution, the share of the IS in the total revenues from taxes passed from 27,9% to 24% during the two above mentioned periods. This tendency to improvement, is ascribable with the good behavior of the results of certain large contributors (the OCP, BAM, IAM…) and with the efforts of the Administration control tax incentive.

With the title of 2018, this share was established in 23,5% range by the companies of the real sector (Agroalimentary, building and construction materials, Distributors) followed those of the sector of the banks.

▪ Concerning IR, the re-entries for this reason were established around 42 billion dirham's in 2018, coming primarily from the IR retained with the source on the wages as indicated. The analysis of the behavior of the receipts of IR on the seventeenths past years emphasizes two distinct phases. A phase before 2008 and one phase after 2008 when the volume of the IS became higher than that of IR, because of the good performances of the carrier sectors to knowing telecommunications, the Construction industry and the financial sector as well as the increase in the manpower of the subjugated tax population with the corporate tax.

3.2 Indirect Taxes

Since its installation in 1986, the profits resulting from the VAT remain dominating in the total revenues from taxes, it constitutes the first funding source of the State and the local government agencies. The re-entries for this reason bordered 65,7 billion dirham's, excluding VAT of the local government agencies.

Indeed, its contribution to the formation of the revenues from taxes passed from 25,6% between 2007-2009 to 30,2% between 2010-2018 (Note 2). This supplement of shares is due to the efforts of Morocco to make this tax the tax pivot of its tax system, because of its very broad potential plate. This is why a reform of this tax was carried out in 2005 (limitation of the exemptions and reduction of the number of rates).

Until 2003, the TIC (excise tax of consumption) and the VAT contributed to shares equal to the indirect tax proceeds. Consequently, the receipts of the TIC knew a moderated growth, passing from 17,3 billion dirham's in 2007 to 28,6 billion dirham's in 2018 compared with 65,7 billion dirham's for the receipts the VAT. In 2018, the share of the TIC accounts for on average 13,3% of the revenues from taxes during the period 2010-2018 compared with 12,1% over the period 2007-2009.

The product of the TIC is drawn mainly by the TIC (See Table 4) on the oil products. As for the TIC on the tobaccos, its evolution remains dependent on the movements of smuggling and the variations of the prices whose impact on the structure of consumption is important.

Table 4. Domestic Consumption Tax (TIC) by Source of Receipts

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TIC (Domestic Consumption Tax)	**17 340**	**18 693**	**19 630**	**21 132**	**21 860**	**22 744**	**22 864**	**23 849**	**24 646**	**27 170**	**27 599**	**28 569**
Tobacco Product	**6 133**	**6 983**	**6 865**	**7 502**	**7 494**	**8 153**	**8 007**	**8 478**	**8 676**	**9 405**	**9 953**	**10 860**
Energy Product	10 159	10 639	11 708	12 307	12 943	13 127	13 325	13 918	14 350	15 675	15 892	15 931
Others	1 047	1 071	1 057	1 323	1 423	1 463	1 532	1 453	1 620	2 090	1 754	1 778

Source: DTFE and DEPF data.

4. Methodology of the Analysis and Results

As Gwartney and Lawsan (2006) showed, of the tax rates on the income of the very high factors of production can affect the economic growth in two manners: (i) they can discourage the effort of work and (ii) they reduce the initiatives private and the will to invest in the physical and human capital. Of their with dimensions, the very high tax rates to consumption can affect the economic growth by exerting price effects and encourage the individuals to substitute goods less desired but fiscally deductible against the more desired goods and fiscally nondeductible. Within the framework of this analysis, the exercise consists in evaluating empirically which proportioning is favorable for the economic growth on the basis of treatment of 56 countries including Morocco over the period of 1995 to 2016 divided into two clubs. Our model consists in observing the real economic growth per capita over one long period for various countries having various proportioning of the taxes. And for Morocco, since 1983 to 2018.

Using the index of the proportioning of the taxes between the income taxes of the private individuals and the excise duties and the explanatory variables of the economic growth, it is possible to appreciate the correlation and the relevance of the effect of the tax index on the economic growth (see Table 5). In addition to the model specified for Morocco, three other models in econometrics of data of panel were used covering the period 1995 to 2016. While being based on the data of 32 countries for panel 1 and 52 countries for panel 2 and the worldwide, the present study exposes the effect of the proportioning of the taxes on the GDP per capita.

Thus, these built models make it possible to explain the relation between the economic growth and the manner of taking the taxes and taxes. Obviously, it is not a question of a simple relation of causes for purposes between taxation and economic growth since several other key economic variables are taken into account to balance the equation.

The Variables retained in the model in Morocco and a panel made up of 84 countries:

✓ **GDP per capita (Variables explained):** GDP by the population. That integrates the fact that a country on low initial level should grow more quickly, in accordance with model of Solow.

✓ **Index of tax proportioning:** Relationship between revenues from taxes direct and revenues from taxes indirect

✓ **Rate of investment:** The nonresidential investment of the private sector in proportion of the GDP represents the physical capital.

✓ **Total consumption:** Final consumption represents private and public consumption in proportion of the GDP. The weight of the public expenditure of consumption in proportion of the GDP measures the place which the public administrations occupy in the economy.

✓ **Education:** This variable represents the human capital.

✓ **Inflation:** A weak and stable inflation resulting from a credible monetary policy encourages the companies to invest and vice versa.

✓ **Growth Demographic:** The growth rate of the population also acts like a factor of depreciation of the capital.

✓ **Commercial Opening:** The total of exports and the imports in proportion of the GDP measures the degree of opening of an economy. A more open economy will have more opportunities as regards overseas investments, of new technologies, in addition to increasing competition on the domestic market.

The proportioning of the taxes between income tax of the factors and the consumption taxes are expressed by a simple and precise index indicating the composition of the revenues from taxes as follows: ***Index of tax proportioning = Direct taxes/indirect Taxes***

The ratio of a tax in proportion of another makes it possible to collect the relative distribution of the two types of taking away, making it possible to easily interpret the effects of the passage from one tax to another. If the index is lower than 1, it means that there is more use of consumption taxes. Conversely, if the index is higher than 1, it means greater use of factor income taxes.

Table 5. Results of the Data Models of Panel, Lists Explanatory Variables, Coefficients and p been Worth between Bracket (Equivalent with the Test of Student)

	Model Morocco	Model Panel 1 (Note 3) (32 countries)	Model Panel 2 (Note 4) (52 countries)	Model total (84)
Tax index	0.316	-0.205	0.107	-0.458
	(0.130)	(0.028)	(0.069)	(0.051)
Rates investment	-0.011	-0.004	-0.001	-0.002
	(0.355)	(0.097)	(0.101)	(0.078)
Overall consumption	0.002	0.013	-0.0003	0.016
	(0.004)	(0.018)	(0.067)	(0.049)
Education	-0.037	-3.595	0.660	-1.461
	(0.065)	(0.033)	(0.095)	(0.061)

Inflation	0.002	-0.014	0.001	0.001
	(0.012)	(0.462)	(0.020)	(0.136)
Growth demographic	0.105	-0.179	-0.023	-0.271
	(0.040)	(0.014)	(0.030)	(0.025)
Commercial opening	0.002	0.001	-0.002	0.001
	(0.117)	(0.994)	(0.388)	(0.985)
Number of observations	24	511	1012	1506
Adjusted R-square	(0.422)	0.512	0.599	0.563

Sources: *Calculations made by ourselves* STATA outputs.

5. Conclusion and Perspectives

More generally, few taxes are well suited to the pursuit of equity goals. Spending policies are often a much better means of achieving these objectives, although the capacity to target spending is very limited. While the scope for pursuing distributional objectives through expenditure targeting should not be taken for granted, experience has clearly shown that the primary function of taxation should normally be to raise the necessary revenues with the least possible disruption to economic activity.

It is well known that the Moroccan tax system relies heavily on income taxation. Morocco is clearly a large user of income tax compared to the average of the OECD where the weight on consumption tax is generally higher. However, based on data from 84 countries, this study shows that over the period of the Over the period 1983 to 2018 the tax mix had an impact on GDP per capita growth.

A revision of the tax mix that would increase the consumption tax and proportionately reduce personal income tax emerged as the most favorable for economic growth.

Morocco will have to continue on this path in order to stimulate economic growth. In view of its budgetary deficit, which will have the effect of slowing down our expected economic growth, a review of the tax mix is one of the solutions to be considered by the Moroccan government to increase economic growth and the standard of living of our population.

From a political economy perspective, the main challenge is to build consensus around a comprehensive tax reform. A fundamental tax reform is never an easy task, especially when, as in Morocco, it must increase revenues. In particular, the recommendation to lower corporate tax rates, while raising consumption tax rates and broadening the personal income tax base, may be unpopular. It is therefore important to underline the fact that corporate taxes are borne not only by shareholders, but also by employees, through lower wages and, potentially, lower employment rates, which may suggest that lower corporate taxes are likely to boost household income and consumption.

Indeed, a study for the United Kingdom found that workers bear about half of the corporate tax burden in the short run and all of it in the long run (Arulampalam, Devereux, & Maffini, 2007).

The implementation of a comprehensive tax reform requires clear communication of the plan and its objectives, based on transparent and well-defined principles, so that taxpayers understand the

government's intentions. This communication effort should focus on the following points:

Before asking citizens to pay more taxes, the government must demonstrate that it wants to improve the efficiency of spending. Further efforts in this direction, such as a continued reduction in public investment, a planned reduction in the public wage bill and a market-based approach to evaluation, would reduce social opposition to tax increases.

As far as possible, reform should treat different segments of the population equally. In particular, it is essential that the broadening of the tax base should also include the self-employed, so as not to place an unfair burden on employees.

The proposed tax reform should take into account new equity concerns, e.g., by introducing a tax credit on income from professional activities and by strengthening inheritance tax and property taxation. Such an approach would prevent the authorities from increasing personal income tax rates, which are rather a disincentive to human capital formation and labour suppl.

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Notes

Note 1. Direction of the Treasury and External Finance of Morocco, 2018.

Note 2. Organization for Economic Cooperation and Development data (OECD 2016).

Note 3. See Appendix 5-List of countries included in panel 1 (32 countries).

Note 4. See Appendix 6-List of countries included in panel 2 (52 countries).

Appendix

Appendix 1. List of Countries Included in Panel 1 (32 Countries)

Argentina, Australia, Austria, Barbados, Belgium, Belize, Bolivia, Brazil, Cabo Verde, Cameroon, Canada, Chile, Colombia, Costa Rica, Côte d'Ivoire, Cuba, Czech Republic, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Eswatini, Finland, France, Germany, Greece, Guatemala, Guyana, Honduras, Hungary, Iceland.

Appendix 2. List of Countries Included in Panel 2 (52 Countries)

Ireland, Israel, Italy, Jamaica, Japan, Korea, Latvia, Lithuania, Luxembourg, Malaysia, Mauritius, Mexico, Morocco, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Trinidad and Tobago, Turkey, Uganda, United Kingdom, United States, Uruguay, Venezuela, Argentina, Australia, Austria, Barbados, Belgium, Belize, Bolivia, Brazil, Cabo Verde, Cameroon, Canada, Chile, Colombia, Costa Rica, Cote d'Ivoire, Cuba.