Chapter 9
Sustainable Tax Behavior on Future and Current Emerging Markets: The Case of Romania and Brazil

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9.1 Introduction

With regard to education, Kofi Annan, a former United Nations Secretary-General and recipient of the 2001 Nobel Peace Prize, once stated that it is "a human right with immense power to transform. On its foundations rest the cornerstones of freedom, democracy and sustainable human development." Hereby, the international diplomat indicated a strong link between education and sustainability, for which he continued to advocate (among others) during his leading UN position (1997–2006). As a result, in 1999 Annan proposed the creation of the United Nations Global Compact (UNGC) to the World Economic Forum participants. Officially launched one year later, the UNGC is an international organization mandated by the UN to endorse the principles of sustainability and social

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responsibility, but also to advance education around the world. For that matter, the organization has been labeled the "largest corporate sustainability action," as it includes 12,000 companies and nonbusinesses which voluntarily adhered to its principles. The UNGC framework is represented by a set of ten principles targeting four major domains such as human rights, labor, environment, and anti-corruption. Figure 9.1 displays this framework.

According to the UNGC, compliance with principles that promote the fundamental human rights, labor freedom, environmentally friendly business practices, and the enhancement of anti-corruption measures is crucial when aiming to increase sustainability levels worldwide. If corporate taxpayers are educated to value sustainability and more lucrative and non-lucrative entities around the world consequently embrace the UNGC framework in the upcoming years, societies will thrive in the long run.

Giving the rapid development of nowadays societies and markets interconnectivity, taxpayers are called not only to comply with sustainability principles, but also with national and international tax regulations. For that matter, compliance is a key aspect in the field of tax behavior, where it manages to draw the line between more and less thriving societies.

Among the aspects previously stated, the following set of questions arises: Is there a link between sustainability and tax behavior? To what degree can a tax behavior be considered sustainable? How do the traits of such tax behavior alter under the dynamics of future and current emerging markets? The following chapter will address this set of questions and will approach matters from the perspective of Romania and Brazil, two countries that share similarities by being closely related to the concept of emerging market. The former aims to obtain the status in the nearest future, while the latter is already an established emerging market and member of the well-known BRICS association. The structure of the chapter is the following. Section 9.2 offers general considerations on tax behavior and its link to the "sustainability" notion. Section 9.3 comprises a detailed comparison of Romania and Brazil in terms of sustainable tax behavior. Section 9.4 draws conclusions.

9.2 General Considerations on Sustainable Tax Behavior

As stated in the introduction, this section will explain the link between tax behavior and sustainability and will present the features of a sustainable tax behavior, from our point of view.

By quantifying Internet searches, it can be stated that the terms "sustainability" and "tax" have been stirring a rising interest during the last six years. Table 9.1 displays the regional interest and searches related to these terms (i.e., "associated phrases"), as listed by Google Trends. When analyzing "sustainability," one can see that the areas registering the highest number of searches were located in Australia, Oceania, and Southeast Asia. Moreover, associated phrases were generally centered

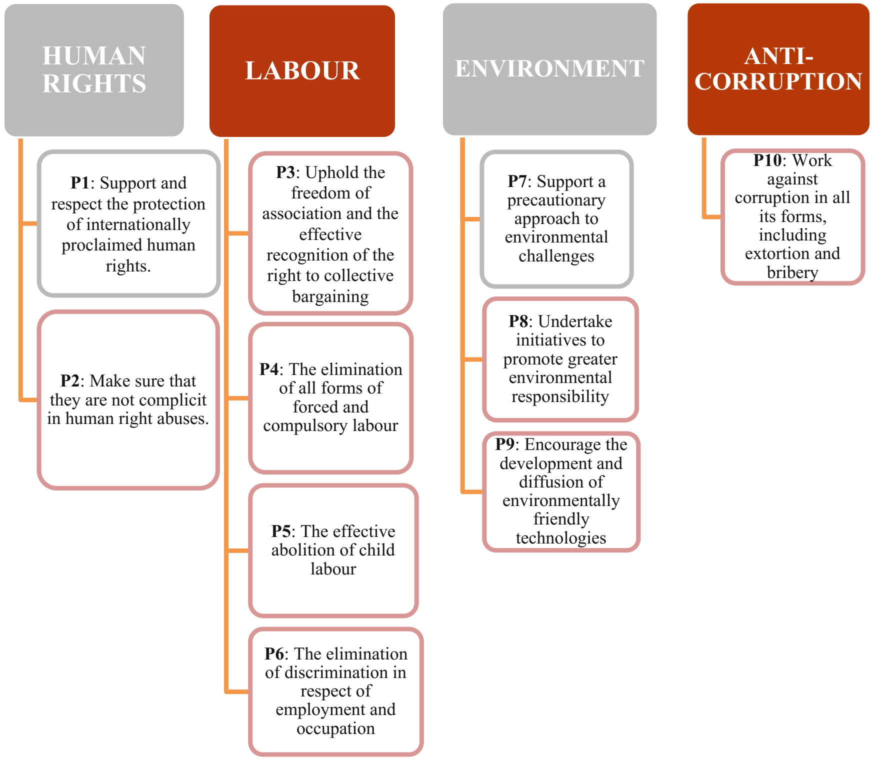

Fig. 9.1 Ten-principle framework of the United Nations Global Compact (UNGC). *Source* Designed based on https://www.unglobalcompact.org/what-is-gc/mission/principles

on the environment, the definition of the term, sustainability reports, energy concerns, business, management, social aspects, or work.

When analyzing "tax," it can be seen that the areas of interest were located in Europe, South Asia, Australia, North America, Africa, and Southeast Asia. Hence, a more extensive regional preoccupation was registered compared to the case of the former term. The related searches referred to different types of direct and indirect taxes, standard tax documents, computations and computation tools, refunds, crediting, or taxpaying methods.

After taking notice of the online search interest produced by the terms "sustainability" and "tax," we will focus on answering to the subsequent question: To which degree is there a link between tax behavior and sustainability? By tax behavior, we mean the actions undertaken by corporate and individual taxpayers while activating in a tax system.

As stated in an OECD (2014: 91–92) report, tax money constitutes an essential ingredient for financing the actions of national/federal, state, and local/municipal authorities that can be further used to enhance all three sustainability pillars

Table 9.1 Interest for the two terms contingent on regional interest and related search

Interest for the term "sustainability"		Interest for the term "tax"	
Regional interest	Related search	Regional interest	Related search
Australia	"sustainable"	Ireland	"income tax"
Uganda	"environmental sustainability"	UK	"tax return"
Zimbabwe	"definition sustainability"	India	"calculator"
New Zealand	"what is sustainability"	Australia	"tax calculator"
Kenya	"sustainability report"	USA	"sales tax"
South Africa	"energy sustainability"	Canada	"property tax"
Ghana	"business sustainability"	New Zealand	"tax refund"
Singapore	"sustainability management"	Singapore	"tax credit"
Tanzania	"social sustainability"	South Africa	"tax online"
Hong Kong	"sustainability jobs"	Hong Kong	"tax car"

Source Based on data provided by Google Trends for the period January 2011–July 2016 (www.google.com/trends)
Note The information is listed in descending order, starting with the highest number of searches *Regional interest* highlights the areas that registered the highest number of searches *Related search* highlights the associated phrases that registered the highest number of searches

(i.e., economic, social, environmental). Specifically, while shaping tax policies for national economies (Schratzentaller 2015) and designing public goods systems, authorities can also incorporate the sustainability perspective to ensure a high-quality lifestyle for their citizens and to target a long-term thriving society.

This integrative approach is equally important for both developed and developing countries around the world. Nevertheless, developing and emerging countries are called to make additional tax efforts in order to achieve their sustainability goals and mitigate their dependence on external financing (OECD 2014: 92). For instance, according to the same report, ensuring environmental sustainability is one of the eight UN Millennium Development Goals that can be achieved by developing countries, provided they manage levying taxes worth 20% of their GDP. By comparison, OECD countries succeed directing nearly twice as much taxes toward their state budgets, i.e., 34% of the GDP. With respect to the economic level, sustainability can be achieved by developing markets if tax authorities establish a cooperative compliance approach within tax systems (van der Enden and Baisalbayeva 2015), fostering interactions with taxpayers based on two main standpoints: (1) trust and transparency; (2) predictability and certainty (PricewaterhouseCoopers, the World Bank, and International Finance Corporation, 2015: 83). Social sustainability can be increased through a more equal distribution of income and wealth (Stancil 2010) and through a reduction of gender gaps (OECD 2016; Schratzentaller 2015).

Starting from the aforementioned aspects, it can be stated that the relationship between tax behavior and sustainability is straightforward. Namely, in addition to tax authorities' actions, the behavior of taxpayers is also a major determinant of a country's tax revenues and ultimately sustainability levels. If taxpayers decide to pay their fair share, tax revenues amass and authorities are able to support sustainability projects by using part of these revenues.

What are the tax behavior patterns? According to the tax behavior literature (Kirchler 2007), the taxonomy of mandatory revenue reporting is centered on the notions of compliance and non-compliance. Relative to this, Franzoni (2000: 55) defines a tax compliant behavior by means of four traits: (1) accurate disclosure of taxable income; (2) precise calculation of tax due; (3) tax return filing in due time; (4) tax liability payment in due time. A taxpayer's behavior is considered to be compliant as long as it incorporates all the aforementioned traits. When the behavior misses even a single attribute, it is immediately categorized as non-compliant.

Regarding the tandem compliance/non-compliance, in-depth empirical research has elicited that a compliant tax behavior can be voluntary or enforced (e.g., Kirchler et al. 2008) and that a non-compliant behavior can be avoidant or elusive. In the first case, voluntary tax compliance emerges when taxpayers credit authorities with high trust, while enforced tax compliance emerges when taxpayers credit authorities with high power. In the second case, avoidance falls out when taxpayers take advantage of the legislative loopholes in order to lessen their tax burden; evasion occurs when taxpayers purposely disregard tax regulations in order to cut out their tax burden.

In our view, a *sustainable tax behavior* cannot be other than a tax compliant behavior. Namely, a tax behavior that internalizes legal, ethical, moral, fairness, and sustainability considerations, that contributes to the benefits of the society and that facilitates the achievement of economic, environmental, and social sustainability levels. After all, taxpayers are drafting the societies in which they live and determining the extent to which the existence of such societies can be sustainable in days to come.

9.3 Sustainable Tax Behavior Under the Dynamics of Emerging Markets: Romania Versus Brazil

In this section, we will investigate the degree to which a sustainable tax behavior alters under the dynamics of future and current emerging markets, with special focus on the case of Romania and Brazil. The two countries were chosen due to their proximity to the emerging market concept: Romania targets to be listed among the emerging countries in the near future; Brazil has been benefiting from this status for quite a while and activating within the BRICS association.

With respect to encouraging sustainable economic activity, Romania and Brazil have already shown commitment in this direction. In 2016, together with other 178 nations, both countries signed the so-called Paris Agreement pertaining to the United Nations Framework Convention on Climate Change (UNFCCC). This is the first covenant focused on climate changes that will enter into force after its ratification by at least 55 of the signatory countries, responsible for producing 55% of the total greenhouse gas emissions. Among the goals of this agreement, two highly important ones are capping the increase of global temperature at 1.5 and mitigating global emissions in the shortest period. Therefore, corporate taxpayers activating in Romania and Brazil, which are motivated to display a sustainable tax behavior, will have to respect the aforementioned agreement and design tax strategies that incorporate cost cuts, energy risks, and environmentally friendly business practices (Deloitte 2012).

The first element we assessed is taxpayers' adherence to sustainability principles. As mentioned in the introduction, the UNGC gathers 12,000 member entities from 170 countries, which number over 58 million employees. Of this total, at the moment the UNGC includes 52 entities (i.e., companies and nonbusinesses) from Romania and 1090 entities from Brazil. The distribution of the companies depending on the activity sector is presented in Figs. 9.2 and 9.3.

In the case of Romania, the activity sectors registering the highest number of taxpayer members are "NGOs, foundations, and associations," followed by "technology" and "financial services." In the case of Brazil, "NGOs, foundation, and associations," "industrial goods and services," and "health care" are the most represented sectors. As can be seen, the entities that primarily emphasize sustainability principles on both emerging markets are NGOs, foundations, and associations, which are generally inclined to support initiatives of improving living standards. Nevertheless, the number of taxpayers compliant with UNGC principles is still insignificant compared to the number of registered corporate taxpayers in both countries (namely, 1,185,703 in Romania and 5,392,234 in Brazil). Sustainability goals would be achieved earlier if more entities would guide their activities based on such principles.

Due to the market dynamics, taxpayers and authorities interact continuously and their interests are often intertwined. Consequently, sustainability-driven goals may appear on their agendas, as they serve the interests of both. It goes without saying that corporate and individual taxpayers can display easier a sustainable tax behavior if authorities set up a tax framework to achieve green policy objectives. The characteristics of this framework (i.e., tax incentives and tax penalties) are captured by the KPMG Green Tax Index 2013, which ranks 21 of the most important world economies (KPMG 2013). Ranging on a scale from 0 to 50, the index is meant to inform corporate taxpayers of the facilities and sanctions implemented by governments in order to promote sustainable business practices. Results indicate that emerging economies register the highest number of tax incentives in terms of renewable energy and fuels.

Out of the two countries included in our study, only Brazil was considered for listing because of its noticeable green tax system. The country ranked 18th among the 21 surveyed economies, with an overall score of 10. With respect to the 11 parameters that make up the index, Brazil was listed half of the times. Namely, it ranked 3rd in green innovation, 6th in material resources and waste, 8th in ecosystem and pollution, 12th in tax incentives, and 15th in vehicles. According to the Green Tax Index 2013 (KPMG 2013: 6), Brazil belongs to the fourth quartile of

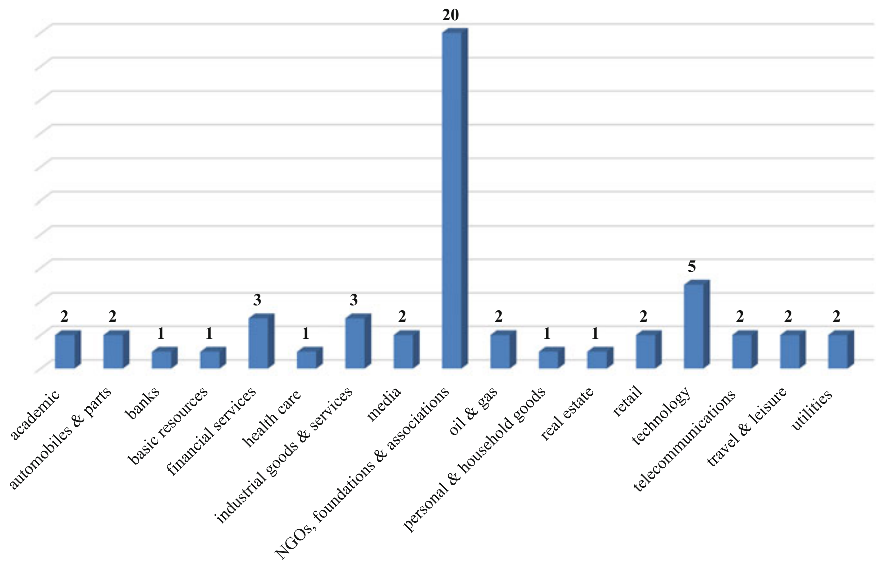

Fig. 9.2 Entities from Romania adhering to the United Nations Global Compact (UNGC) principles. *Source* Designed based on data retrieved from https://www.unglobalcompact.org

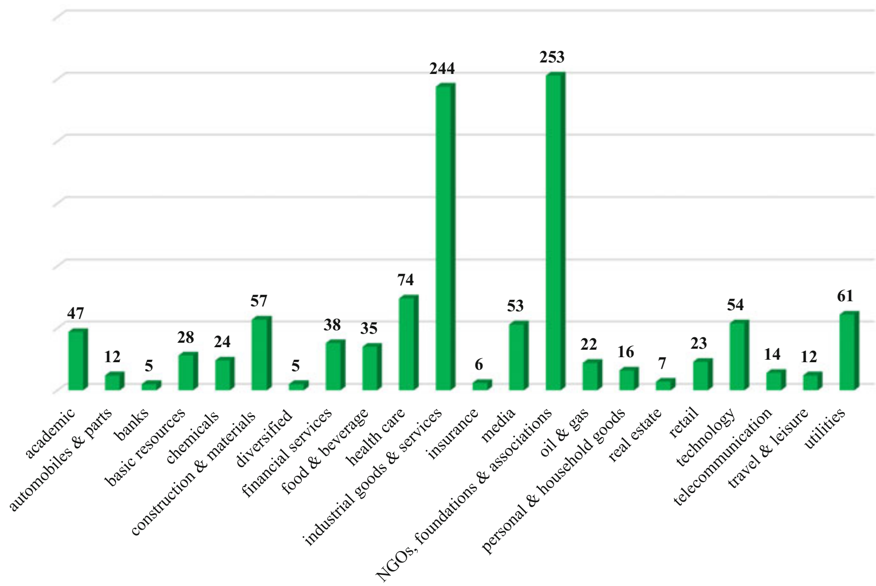

Fig. 9.3 Entities from Brazil adhering to the United Nations Global Compact (UNGC) principles. *Source* Designed based on data retrieved from https://www.unglobalcompact.org

countries, registering the following marks: (a) reduced use of taxes as green policy instruments; (b) lack of green tax penalties; and (c) available funding programs for sustainability projects, i.e., the FUNTEC R&D grants (Amman and Baer 2002). Starting from the fact that Brazil occupies a leading position in incentivizing green innovation on the wind, solar, and biofuel markets (Afionis et al. 2014; World Bank 2012: 67), it can be forecasted that a higher number of corporate taxpayers activating on these markets will adopt a sustainable tax behavior in the future.

The presence of Brazil within the green tax landscape is understandable given that the country possesses considerable resources (Clusener-Godt and Sachs 1995) and has been manifesting interest for projects enhancing sustainability for more than three decades (i.e., Law no. 6938/1981). In Romania, similar approaches have been tackled more recently (i.e., Law no. 137/1995). The disparities between the two countries hold up also in the case of the results produced by the Happy Planet Index.[1]

Ranging from 0 to 100, the composite indicator estimates sustainable well-being by determining the degree to which country residents employ natural resources to experience long, happy, and sustainable lives.

Figure 9.4 displays the evolution of the Happy Planet Index overall scores for Romania and Brazil. As it can be seen, Brazil has scored higher during the entire period, which translates into a greater care for natural resources from corporate and individual taxpayers. A similar conclusion can be drawn from Fig. 9.5. The index component termed "ecological footprint" is measured in global hectares (i.e., 10,000 m^2), and it indicates the land area available for the production of resources and services to be consumed by the general population. Though both countries exceeded the levels compatible with environmental sustainability, Romania puts a higher demand on its natural resources than Brazil. In order to decrease the country's ecological footprint, corporate taxpayers in Romania could invest more in technologies decreasing carbon emissions and could also limit the consumption of non-renewable resources while developing their businesses.

As a rule, monitoring tax compliance behavior is an intricate process that requires complex efforts from tax authorities. On the other side, it is also true that monitoring compliance requirements within tax systems entails substantial efforts from contributors who aim to display a sustainable tax behavior. Nevertheless, both matters seem to find answers in international publications. Yearly, the *Paying Taxes* reports issued by PricewaterhouseCoopers and the World Bank Group offer detailed insights into tax systems around the world. Moreover, these reports track the evolution of analyzed tax systems by means of a standard indicator framework, which assesses the ease of taxpaying for corporate contributors and thus facilitates benchmarking.

[1]For the analyses of this chapter, we have considered the previous version of the Happy Planet Index (2006–2012), which encompassed "life expectancy," "experienced well-being," and "ecological footprint," in order to present its evolution. The 2016 version of the composite index is slightly changed, as "life expectancy" and "experienced well-being" are adjusted for "inequality of outcomes."

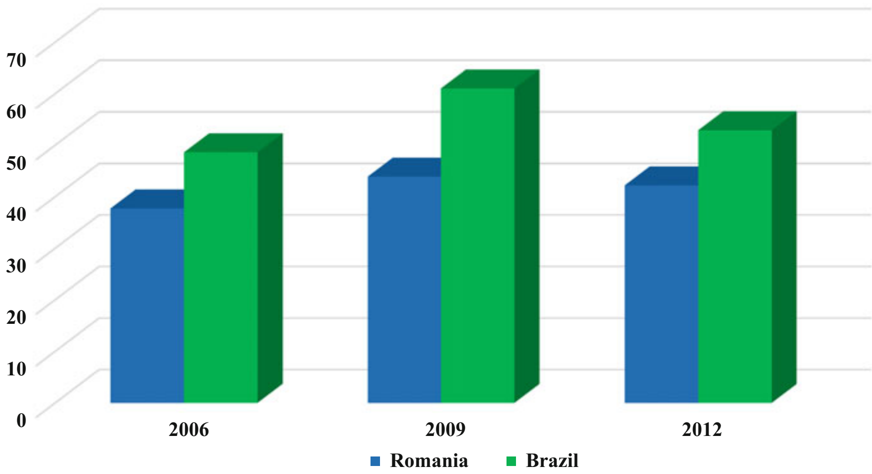

Fig. 9.4 Happy Planet Index overall rankings for Romania and Brazil. *Source* Based on data retrieved from the Happy Planet Index reports (New Economics Foundation 2006, 2009, 2012)

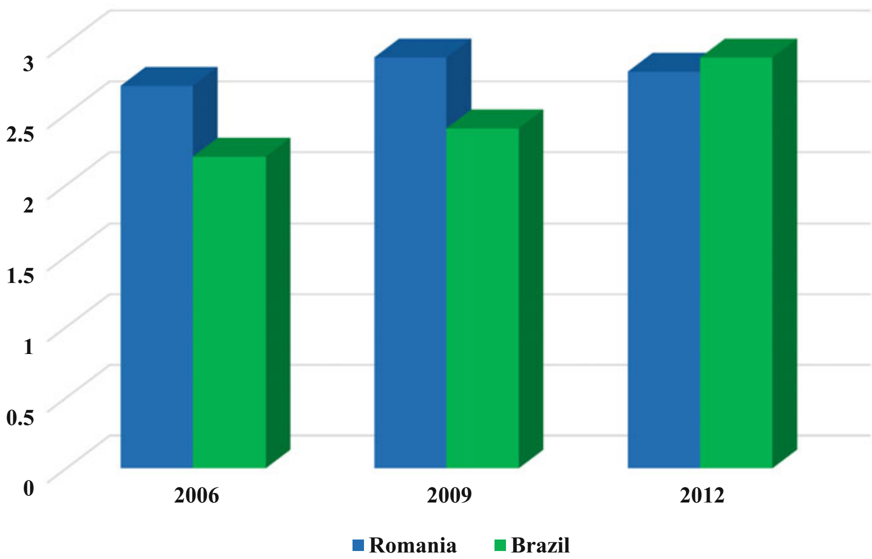

Fig. 9.5 Ecological footprint scores for Romania and Brazil. *Source* Based on data retrieved from the Happy Planet Index reports (New Economics Foundation 2006, 2009, 2012)

The framework comprises the following three indicators (Paying Taxes 2016: 9): (a) *total tax rate*, capturing the amount of taxes as a percentage of the commercial profit; (b) *time to comply*, indicating the number of hours needed to compile, file, and pay three main types of taxes (i.e., corporate income, labor and mandatory contributions, and consumption); (c) *number of payments*, quantifying the rate with which a corporate taxpayer is expected to file and pay different taxes through the tax year.

In the following, we will briefly examine the evolution of the standard indicators for Romania and Brazil,[2] based on data covering a ten-year period (i.e., 2005–2014).

Figure 9.6 highlights considerable differences between the two tax systems in terms of total tax rate. If corporate taxpayers activating in Romania have been subject to an average tax rate of 45%, their counterparts have been expected to direct on average 69% of their commercial profit to the Brazilian authorities. In addition, while the tax burden in Romania has been constantly decreasing from 48% to 42% along the years, in Brazil it has remained almost unchanged. For that matter, the differences are understandable, given the fact that Brazil is one of the countries with the highest tax rates in the world, a skewed income distribution, onerous tax regulations for private businesses, a rising effective tax rate (Freitas Azevedo and Marsiglia Fasolo 2015), and a higher reliance on consumption taxation than Romania (for more information, see Brazil's tax guide).

The intricacy of Brazilian tax regulations stems primarily from the fact that taxes are levied at different levels: federal, state, and municipal (OECD 2015). Considering sales taxes for instance, while Romania taxes consumption of goods and services only through its value-added tax (VAT) applied at national level, Brazil levies multiple sales taxes, such as: tax on industrialized products (IPI) at federal level; tax on sales and services (ICMS) at state level; tax on services provided to third parties (ISS) at municipal level. Secondly, tax rates differ considerably within the same level. For instance, each of the 26 Brazilian states has different rates for the same tax.

Consequently, the high tax burden and the complex tax system have resulted in lower tax-to-GDP ratios for Brazil than for Romania. For example, in 2012 Brazil registered a rate of 14.1%, while Romania registered 18%.

The differences between the two tax systems remain considerable in terms of the time to comply and the number of payments indicators. As can be seen from Figs. 9.7 and 9.8, the Romanian tax system is characterized by less red tape than the Brazilian one. On average, a corporate taxpayer registered in Romania makes around 74 tax payments throughout the fiscal year and fulfills all the administrative tasks connected to such payments in about 8 days (i.e., 198 h). Overall, the values of both indicators have decreased with the passing of time.

On the other side of the globe, corporate taxpayers in Brazil are requested to make only 11 tax payments, yet the time needed to fulfill authorities' regulations

[2]In the case of Brazil, the last two editions of the *Paying Taxes* reports have determined the three indicators for its two leading cities (Godfrey 1999), São Paulo and Rio de Janeiro; the former is the most important financial center in Latin America, and the latter is deemed the cultural capital of the country. Consequently, we displayed the standard indicators for both cities. When the reports indicated only overall country values, we considered them to be identical for São Paulo and Rio de Janeiro.

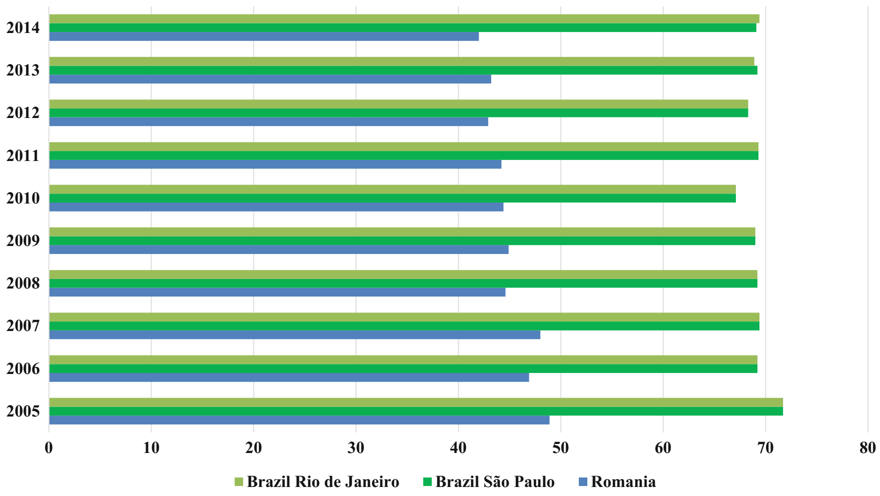

Fig. 9.6 Evolution of the PwC total tax rate indicator for Romania and Brazil. *Source* Based on data retrieved from the PwC *Paying Taxes* reports released in the period 2006–2015

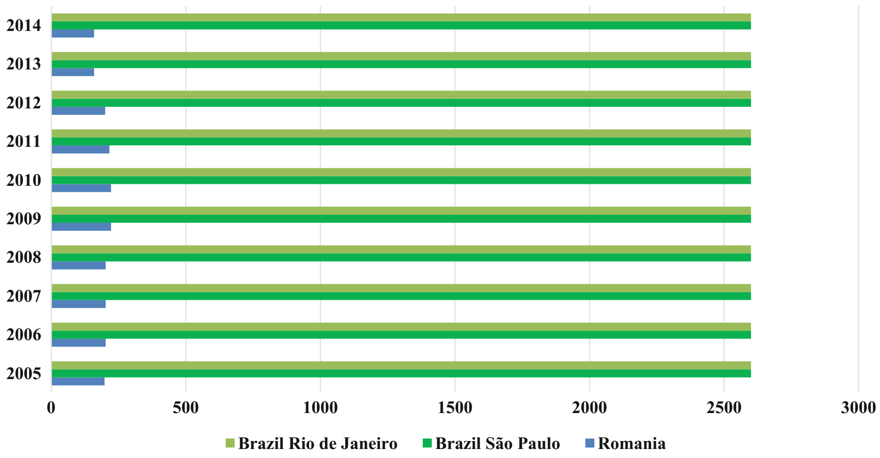

Fig. 9.7 Evolution of the PwC time to comply indicator for Romania and Brazil. *Source* Based on data retrieved from the PwC *Paying Taxes* reports released in the period 2006–2015

covers one-third of a fiscal year (i.e., 2600 h). The tax payment rate has remained relatively stable (except for the year 2005), with only São Paulo municipality registering a slight increase from 9 to 10 payments. The time spent by taxpayers to comply has remained unchanged for a decade.

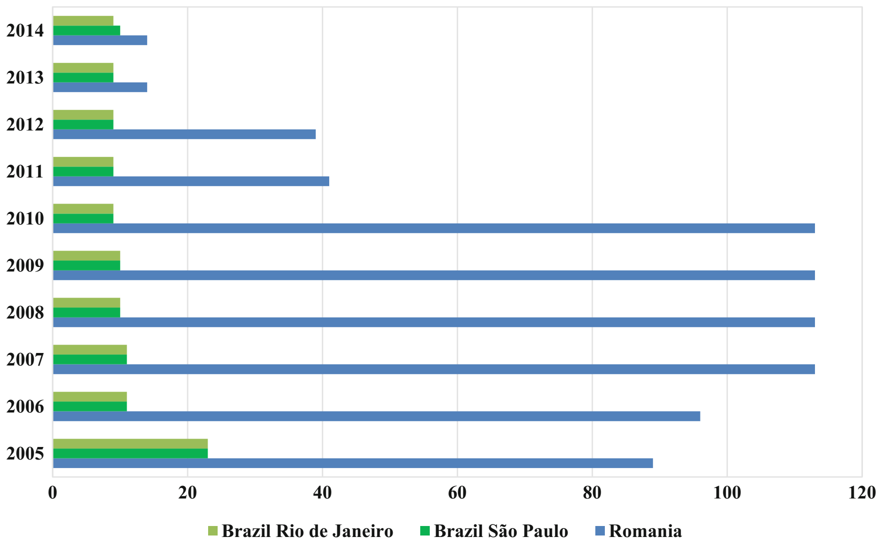

Fig. 9.8 Evolution of the PwC number of payments indicator for Romania and Brazil. *Source* Based on data retrieved from the PwC *Paying Taxes* reports released in the period 2006–2015

Considering the country features of the standard indicator framework, Brazilian authorities should undertake substantial efforts in simplifying tax requirements to make contributors display a sustainable tax behavior and to attract more investors, as Brazil is the largest recipient of foreign direct investment in Latin America.

Besides respecting customary tax regulations, a sustainable tax behavior involves also an increased concern for the environment, awareness regarding the negative impact of pollution, and a thorough knowledge of aspects like green taxation (Kreiser et al. 2012a; OECD 2006; Von Weizsacker and Jesinghous 1992; Zhou and Segerson 2012). In this respect, corporate and individual taxpayers from Romania and Brazil are (at least in theory) familiarized with the topic of green taxation, as national tax systems stipulate the levying of various environmental taxes (e.g., on energy, pollution, transportation), among which the so-called eco-tax on plastic bags. In Romania, this type of tax was introduced in 2008, it has a value of 0.2 RON (approx. 0.04 Euros) and is intended to collect additional resources to the Environmental Fund (which finances the environment protection since 2005), and it also targets to decrease the demand of bags made from non-biodegradable materials. According to a study within the "Pre-waste" European partnership project conducted on the Romanian market, the second aim of this eco-tax has still not been reached. Taxpayers seem indifferent between using bags from biodegradable and non-biodegradable materials, and therefore, the consumption of plastic bags has increased over the years.

On the Brazilian market, taxpayers are encouraged to reuse bags after shopping and not purchase new ones. For example, in 2015 a law banning retailers from providing traditional plastic bags (made of petroleum-based plastic) to their customers was enacted by the municipal authorities of São Paulo. Consequently, since then it is mandatory for retailers to provide only plastic bags made from sugarcane ethanol (i.e., a sustainable bioplastic containing at least 51% renewable material), which could be three times more expensive than the petroleum-based ones. Regarding this issue, Avallone et al. (2012) conducted a study on Brazilians' conscious consuming and reported that subjects attributed median importance to the use of plastic bags and were inclined toward reusing them in their households.

9.4 Conclusions

The opening paragraphs in Chap. 2 of the volume "Where is the Wealth of Nations?" (World Bank 2005: 19) state the following: "Economic theory tells us that there is a strong link between changes in wealth and the sustainability of development—if a country (or a household, for that matter) is running down its assets, it is not on a sustainable path." Amid the intensification of the economic activity on worldwide developed, emerging, and developing markets, the increasing world population, and the slow resource depletion, the question of sustainability under its different forms (i.e., economic, social, environmental) remains much debated in the literature.

The importance of endorsing sustainable economic projects is one of the primary issues found on the agendas of international organizations (International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations and World Bank 2011; OECD 2008, 2010; United Nations 2015; United Nations Economic and Social Commission for Asia and the Pacific 2016; United Nations Global Compact 2014), established professionals and researchers (Carroll and Buchholtz 2014; Frieders 2015; Garcia-Diaz and Raidbard 2016; Goldin and Winters 1995; Grubb 2014; Kreiser et al. 2012b; Murty 2009; Nelson et al. 2015; Nordhaus 2010; Pearce 1991). The majority of the studies convey the same message: Integrating the sustainability perspective into business strategies has become a necessity for societies aiming to increase citizens' well-being in the upcoming years. For this reason, sustainable behavior in general (Manning 2009; McKenzie-Mohr 2011) and sustainable tax behavior in particular should be considered by an increasing number of world citizens.

The present chapter tackles the concept of sustainable tax behavior on future and current emerging markets, with particular interest on the Romanian and Brazilian economies. We define the sustainable tax behavior as a tax compliant behavior. In other words, a market conduct is displayed by a corporate or individual contributor who understands that paying the fare share to national/federal, state, or municipal authorities (according to the tax law in force) finances not only the quality of his lifestyle, but also secures a sustainable well-being. Going further, one could state that any deviation from tax compliance (i.e., tax avoidance or tax evasion) ultimately affects sustainability levels.

Using data retrieved from reports provided by international organizations and companies like the International Monetary Fund, KPMG, New Economics Foundation, OECD, United Nations Global Compact, World Bank, and country-specific sources (i.e., Romanian National Trade Register Office, Brazilian Institute of Geography and Statistics, Brazil Tax Guide), we investigate the attributes of sustainable tax behavior of contributors from Romania and Brazil by targeting adherence to UNGC sustainability principles, the dynamics of sustainability level, the characteristics of tax systems and compliance requirements, and also aspects related to green taxation.

According to the analyses, both countries have taken steps forward on the way to encouraging sustainable economic activity, with Brazil registering noticeable progress especially in sustainability levels and green taxation. The assessment of the tax systems via the PwC standard indicator framework (i.e., total tax rate; time to comply; number of payments) reveals that authorities in both countries need to make additional progress in incentivizing citizens to display a sustainable tax behavior, particularly Brazil which requires a considerable simplification of its tax requirements.

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