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# **ECONOMIC DEVELOPMENT AND LAND ISSUES IN LIECHTENSTEIN: HISTORICAL DYNAMICS, CURRENT CHALLENGES AND SUGGESTED FISCAL REMEDIES**

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## ABSTRACT

Despite its miniscule size and lack of exportable natural resources, in the course of the last century Liechtenstein has become one of the wealthiest countries (per capita) in the world. The rapid growth has resulted in a very significant increase in land values throughout the Principality. However, contrary to the experience of many larger economies, the socio-economic effects of the increasing land values in Liechtenstein have so far been relatively benign. This paper explores some of the key reasons behind the country's economic success, highlighting in particular the advantages of Liechtenstein's size for its foreign policy, domestic institutions and private enterprises. It also demonstrates that Liechtenstein's geographical location, favourable agreements with neighbours, type and pace of growth, as well as various elements of legislation have all helped to mitigate the development of land-related socio-economic issues. There has been a growing realization that these factors might be insufficient in preventing unsustainable urban sprawl, environmental degradation, decreasing economic opportunities, worsening housing affordability and increasing inequalities. As a potential remedy to these problems, the authors suggest a reform aimed at shifting at least some of the fiscal burdens from labour and businesses to the unimproved land values that are created by public investments and community's efforts.

*Keywords: Land Value Tax; Spatial Economics; Economic Growth; Small-State Economics; Microstates; Liechtenstein*

*JEL classification: H00, N14, N15, O18, Q24, R14*

Trotz seiner Kleinheit und dem Mangel an exportierbaren natürlichen Ressourcen hat sich Liechtenstein im letzten Jahrhundert zu einer der wohlhabendsten Nationen (pro Kopf) der Welt entwickelt. Das steile Wirtschaftswachstum ging einher mit einem starken landesweiten Anstieg der Bodenpreise. Entgegen den Erfahrungen in grösseren Volkswirtschaften waren die sozio-ökonomischen Effekte der ansteigenden Bodenpreise in Liechtenstein bis anhin relativ gering. Das vorliegende Papier untersucht die Schlüsselfaktoren hinter Liechtensteins ökonomischem Erfolg und geht vor allem auf die Kleinheitsspezifischen Vorteile für seine Aussenpolitik, inländische Institutionen und private Unternehmen ein. Zudem wird dargelegt, wie Liechtensteins geographische Lage, vorteilhafte Übereinkommen mit Nachbarstaaten, die Art und Geschwindigkeit des Wachstums, sowie verschiedene gesetzliche Faktoren dazu beigetragen haben, die negativen auf Boden bezogenen sozio-ökonomischen Effekte zu mildern. Dabei wird im Beitrag argumentiert, dass sich die Stimmen und Anzeichen mehren, dass die eben genannten Elemente immer unzureichender werden, um nicht-nachhaltiger Zersiedelung, Entwertung der Umwelt, langfristig limitierten räumlichen Voraussetzungen für Wirtschaftstätigkeit, sinkender Erschwinglichkeit von Wohnraum und stärker werdender Ungleichheit entgegenzuwirken. Die Autoren schlagen als Abhilfe dieser Probleme eine Steuerreform vor (vor allem die Einführung einer Bodenwertsteuer), welche dazu beiträgt, einen Teil der Steuerbelastung von Arbeit und Unternehmertum auf die Bodenwerte von unbebautem Land zu übertragen, welche sich ja in erster Linie durch öffentliche Investitionen und Anstrengungen der Allgemeinheit ergeben.

*Schlüsselwörter: Bodenwertsteuer; Raumplanung; Wirtschaftswachstum; Kleinstaaten-Ökonomie; Mikrostaaten; Liechtenstein*

*JEL-Klassifikation: H00, N14, N15, O18, Q24, R14*

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## 1. INTRODUCTION<sup>1</sup>

The Principality of Liechtenstein is a geopolitical and economic oddity. Despite its miniscule size and lack of any substantial natural resources, it has steadily maintained its sovereignty, unique political system and economic viability while most of the continent's rest has undergone dramatic changes in result of wars, revolutions and depressions. What is more, in the course of the last century Liechtenstein has experienced an unprecedented economic development that has transformed this alpine monarchy from a poor land of farmers into one of the world's richest countries per capita and one of Europe's most technologically advanced and industrialized nations (CATUDAL [1975], STRINGER [2006], STRINGER [2013], YOUNG [2010]).<sup>2</sup> Not surprisingly, its tremendous economic growth has resulted in a very significant increase in land values throughout the Principality. However, contrary to the experience of many other, larger economies, the socio-economic effects of the increasing land values have so far been relatively benign. Unlike many other rapidly growing regions, Liechtenstein has retained a country-side character, a high degree of social cohesion and equality and it has remained largely free from such problems as rampant land speculation, absolute poverty, crime and unemployment. This phenomenon is particularly striking considering the country's extreme geographic constraints. While Liechtenstein has an economic structure and dynamism of a successful city, it continues to resemble a conglomerate of eleven wealthy, but small, quite egalitarian and rather sleepy municipalities.

In this paper, we will highlight some of the key reasons behind Liechtenstein's political and economic success. We will argue that to a significant degree the Principality's political survival and prosperity have been, somewhat paradoxically, made possible by its very small size and lack of any geopolitical significance. Further, we will turn to outlining the effects of Liechtenstein's economic growth on its land values and land usage. We will also present and briefly analyse a number of factors that have so far mitigated the potential negative socio-economic consequences of rapidly rising land values in this small polity with largely unconditional private land ownership. We will also demonstrate the inherent, and increasingly evident, limitations of these mitigating factors. In the final part of this paper we will suggest that for Liechtenstein to retain its socio-economic health, its government should consider using fiscal mechanisms for capturing a greater proportion of the unimproved land values created by public investments and community's effort and entrepreneurship. Such a reform could not only alleviate some of the key land-related problems, but also allow lessening the fiscal burdens on labour and businesses while ensuring a steady source of revenue for both the national and the local governments.

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<sup>2</sup> Also see OSPELT [1974], QUADERER-VOGT [2014], GEIGER [2000], GEIGER [2010] and MERKI [2007b] for a more detailed account of Liechtenstein's economic history in the 19<sup>th</sup> and the 20<sup>th</sup> centuries.

## 2. A LOOK AT LIECHTENSTEIN'S SIZE, ECONOMIC GROWTH, AND LAND OWNERSHIP PATTERNS

### 2.1. Small Size: Challenges and Opportunities

Small size, lack of natural resources and strategic insignificance can potentially pose tremendous challenges to political and economic viability (BENEDICT [1967], ROBINSON [1960]). However, in the case of Liechtenstein, a country with only 160 km<sup>2</sup> of land area and around 37'000 inhabitants, these conditions have not only been crucial to its survival as a sovereign polity but also of key importance to its 20<sup>th</sup> century economic success. Liechtenstein came into existence as a distinct political unit in very unusual circumstances. Unlike most other states in Europe, it was not born through conquest, peaceful separation or unification. Instead, it was formed out of a purchase of the county of Vaduz and the lordship of Schellenberg made at the turn of the 18<sup>th</sup> century by Prince Johann Adam I Andreas "The Rich", the head of the wealthy and powerful Austria-based Liechtenstein family. While Johann Adam I Andreas possessed wealth and influence at the court in Vienna, his ambition was for the House of Liechtenstein to gain seat and voice in the Imperial Council of Princes. For that reason he needed to acquire so-called Free Imperial Territories, namely territories under the direct jurisdiction of Emperor and Reich. The greatly impoverished, small and remote lands of Vaduz and Schellenberg were such territories. More importantly, their indebted rulers were eager to sell them to the highest bidder. Johann Adam I Andreas managed to purchase them both and in 1719 they were merged and raised to the Imperial Principality of Liechtenstein by Emperor Karl VI.<sup>3</sup> In 1806, when the Reich collapsed, Liechtenstein became a recognized sovereign state that has survived until today primarily because of its geopolitical and economic insignificance and the influence of its ruling family. Liechtenstein has simply been too small and too poor "for most predators to find it worth making a determined effort to seize it" (BEATTIE [2004, p. 369]).

The country's small size has also played a crucial role in the forming of its special relationship with its neighbour Switzerland, after Liechtenstein had cut off its tight ties to Austria right after World War I. The arrangement between the two countries can be described as a type of benign protection where Switzerland offers its small neighbour important administrative assistance and full access to its market without officially questioning its sovereignty.<sup>4</sup> Switzerland's agreement to such an arrangement was based on a mixture of self-

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<sup>3</sup> For a detailed description of these events see BEATTIE [2004], HASS [2004], KOHN [1967], and BRUNHART [2013b].

<sup>4</sup> The fact that Liechtenstein is both very small and voluntarily associated with its larger neighbour makes it a good example of a microstate understood as a "modern protected state", i.e. a "sovereign state that has been able to unilaterally depute certain attributes of sovereignty to a larger power in exchange for benign protection of its political and economic viability against its geographic or demographic constraints" (DUMIENSKI [2014]). As such, it shares certain structural similarities with other microstates such as San Marino, Andorra, Monaco or the Cook Islands. All these microstates are characterized not only by their geographic or demographic smallness, but also by their voluntary and non-reciprocal delegation to larger states of some authority normally retained by sovereign states in exchange for protection and/or administrative and economic assistance or protection (ibid.).

interest and sympathy for Liechtenstein's desperate situation after World War I. It was further made acceptable by the perception of Liechtenstein's smallness (no risk of being an excessive burden) and low economic relevance.<sup>5</sup> This special arrangement was one of the key factors in Liechtenstein's economic development.<sup>6</sup> Putting aside the advantages of having free access to a larger market, the relationship with Switzerland meant that Liechtenstein could "outsource" several of its key government functions<sup>7</sup> and public infrastructure to its neighbour (GANTNER AND EIBL [1999], KASPER [2013], MERKI [2007b], SOCHIN D'ELIA [2013]). In consequence, by becoming associated with Switzerland Liechtenstein could not only attenuate typical diseconomies of scale that small countries face when financing its public duties (ARMSTRONG AND READ [2003], KUZNETS [1960]), but also secure politico-economic viability and autonomy.

## 2.2. Economic Growth in the Principality

The small size of Liechtenstein has also proven crucial to many other aspects of the Principality's development.<sup>8</sup> In addition to outsourcing expensive functions, tiny Liechtenstein could hope to significantly supplement its budget and indeed secure economic development by "commercialising" its status of an internationally sovereign state (DREZNER [2001], MERKI [2007b]). In practical terms, Liechtenstein has been able to make relatively substantial gains from such activities as selling stamps or even, as was practiced up until a few decades ago, passports and citizenships<sup>9</sup>, as well as establishing a fiscally and legally attractive environment for countless European companies and wealthy individuals (GLOS [1984], MARIAS [1957]).

Yet, unlike many other small states, microstates or sub-national jurisdictions (BALDACCHINO AND MILNE [2008], GRYDEHØJ [2011]), Liechtenstein's economy has been based on much more than its (fading) status of a tax haven. Despite its small size, the

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<sup>5</sup> See QUADERER-VOGT [2014, pp. 100, 122–123, 149–150, 163, 167, 174] for a more general picture of Switzerland's motives in this context.

<sup>6</sup> Interestingly, due to Liechtenstein's rapid growth, its national income per capita reached Swiss levels by the 1960s and surpassed it by 100% by the late 1980s. Since then, the two countries have been growing at a similar rate (BRUNHART [2012, pp. 38–39]).

<sup>7</sup> It is often claimed that Liechtenstein has also outsourced its military defense to Switzerland. In fact, that is not true: Liechtenstein has never been included in any applied Swiss defense concept, but instead it was assumed to serve as a buffer in the case of an attack. Hence, Liechtenstein has not outsourced its military defense but simply given it up. Liechtenstein's army was officially dissolved in 1868 (albeit in theory, by constitution, every able-bodied Liechtensteiner is obliged to defend the country).

<sup>8</sup> The following "strong" and "soft" factors of Liechtenstein's economic success evolve from Liechtenstein-specific considerations but are also obtained from general findings in the fields of empirical and theoretical small states economics, growth economics and new institutional economics. Timeable milestones for the economic success of Liechtenstein were undoubtedly the custom treaty with Switzerland (1923), the monetary union with Switzerland (introduced in the 1920s and officially incorporated in 1980) and the memberships in the European Free Trade Association (1991), the European Economic Area (1995), and the World Trade Organization (1995).

<sup>9</sup> Following decades of strong criticism coming from Liechtenstein's neighbours (with potential negative implications for the continuity of some of the preferential agreements with Switzerland) and "after the judgement of the International Court of Justice in the Nottebohm case which denied any duty for Guatemala to recognize the diplomatic protection in case Liechtenstein citizenship was given without living in Liechtenstein itself" the Principality finally amended its legislation in 1960 and gave up the practice of selling citizenships (SCHWALBACH [2012], SOCHIN D'ELIA [2014, pp. 9–14]).

Principality has “a broadly diversified economic structure with significant emphasis on industrial production, with many Liechtenstein companies working in specialized, research intensive market niches, in which they are considered global market leaders” (STRINGER [2006, pp. 7–8]). The success of the manufacturing sector in the Principality can, to a certain extent, also be attributed to the country’s smallness.<sup>10</sup> The miniscule size of Liechtenstein’s economy has meant not only that protectionism has never been seen as a viable option, but also that local companies have always had to be internationally competitive in order to succeed (STRINGER [2006, p. 18], YOUNG [2010, p. 290]). Arguably, the fact that local manufacturers have had to face a fierce competition from a very early stage of their development and that they have operated out of a country with scarce natural resources and labour have made them remarkably innovative and entrepreneurial (STRINGER [2006, p. 18]).

Liechtenstein’s smallness, among other factors, has also made it imperative and perhaps also possible for the country to maintain a regime of low taxes on productive activities, good governance, little corruption, efficient decision and cooperation network in and between the public and private sector, and minimal bureaucracy (ARMSTRONG AND READ [2003, pp. 106, 114], KASPER [2013], MERKI [2007a, p. 217], MERKI [2007b, pp. 13–14]).<sup>11</sup> These features, alongside the country’s free access to larger markets and the availability of new transportation and communication technologies, have made it an attractive location for various enterprises, particularly those producing high-tech and high value goods (BEATTIE [2004], KASPER [2013], STRINGER [2006], STRINGER [2013]). Moreover, Liechtenstein’s diminutive size has also had important cultural consequences. In a country the size of Liechtenstein, people are more careful about their personal reputation and place an emphasis on trust, honesty and predictability (KASPER [2013]). Consequently, Liechtenstein boasts an environment more conducive to peaceful cooperation than many of the large economies.<sup>12</sup>

All the above factors, most of which are linked to Liechtenstein’s small size, have contributed to the rapid economic development of the Principality. In half a century, Liechtenstein was transformed from an impoverished agrarian society into one of the world’s wealthiest (per capita) and most technologically advanced economies. In line with the predictions made by Henry George in “Progress and Poverty” (1886), this transformation has been accompanied by an unprecedented increase in land values across the Principality. Yet, somewhat surprisingly, the socio-economic effects of these increments have been relatively benign taking the speed and magnitude of Liechtenstein’s economic progress

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<sup>10</sup> The location of Liechtenstein in the heart of Europe with economically successful surrounding countries, such as Switzerland, Austria or Germany, has certainly been an advantage for its economic development.

<sup>11</sup> This, despite the fact that, in general, a high degree of social cohesion also carries the risk of abusive rent-seeking (ARMSTRONG AND READ [2003]).

<sup>12</sup> There is a relatively rich scholarship dedicated to studying the advantages and disadvantages of very small states concerning economic growth and the relation of country size and the relative size of the public sector (see for example ARMSTRONG AND READ [2003], EASTERLY AND KRAAY [2000], KOCHER [2002], MERKI [2007a], BÜCHEL [1993], ROTHSCHILD [1993]).



into account. According to George, when the land tenure system is based on unconditional private ownership, all the benefits of economic progress and rising population tend to gradually fall into the hands of the owners of land and other “natural opportunities” who do not contribute in any way to the productive process (NETZER [2001, p. 97]). As such, poverty and inequality become permanent features of the system with remedies such as welfare or charity providing only a temporary and very imperfect relief. Furthermore, George observed that the rising values of land produce a strong incentive for speculation which ultimately leads into periodical industrial recessions and depressions (FOLDVARY [1997], GEORGE [1886]).

In the case of Liechtenstein however, the scale of these negative effects has so far been rather small. While the country has experienced relatively high fluctuations in production (as reflected in GDP) and income (as reflected in GNI) across the business cycles, since World War II it has not experienced any severe recession in terms of dramatic consequences, such as high unemployment (BRUNHART [2013a, pp. 11–37]). What is more, throughout this period Liechtenstein has been virtually free of absolute poverty and any unemployment (BEATTIE [2004, p. 346]). Although there are signs that this state of affairs might be coming to an end, it is nevertheless important to highlight the factors that have so far permitted Liechtenstein to largely escape the fate of many large industrialized economies that suffer from sharply rising inequalities (PIKETTY [2014]), high rates of unemployment and absolute poverty, and that experience periods of severe economic depressions.

### **2.3. Economic Progress, Land Ownership Pattern and Their Implications**

For the most part of Liechtenstein’s history, the Principality’s economy was dominated by subsistence agriculture (STRINGER [2006]). Due to its very small territory, low land productivity and recurring floods the economy could sustain only a small number of inhabitants. The situation was particularly precarious for those without sufficient access to land (in the form of either individual or collective ownership). Consequently, from the 19<sup>th</sup> up until the 20<sup>th</sup> century the country experienced repeated waves of emigration (BEATTIE [2004], BRUNHART [2013b, pp. 44–45], JANSEN [1998] and STRINGER [2006]). Most of those who stayed in the country either owned the land<sup>13</sup> on which they worked or co-owned it with other members of their communes via a system of village co-operatives.<sup>14</sup> In result, at the turn of the last century, land ownership in the Principality was relatively widespread and

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<sup>13</sup> In particular following the 19<sup>th</sup> century reforms that finally freed the peasants from their financial or other obligations tied to land use towards the Prince, feudal landlords or the church (RATON [1970, p. 42]). It is important to note that the Princely family itself was never interested in holding much land in the Principality or in imposing any significant economic hardships on Liechtenstein’s farmers. At that time, the main motivation for their interest in the country was political and not economic (BEATTIE [2004, p. 18]).

<sup>14</sup> In fact, the Liechtenstein communes (municipalities) began as “agrarian village communities with common use of certain lands and water” with responsibilities over poor relief, some regulations, governance and even accepting or rejecting strangers who, when accepted, could “enjoy the right to use common land” (BEATTIE [2004, pp. 249–250]). See BIEDERMANN [2012] for further details on naturalization in Liechtenstein during the 19<sup>th</sup> and 20<sup>th</sup> centuries.

rather fragmented due to the practice of dividing the land between descendants (MERKI [2007b, pp. 56–58], OSPALT [1974, pp. 147, 177–178]).

While this situation meant low living standards for nearly all in an economy dominated by unsophisticated agriculture, it has paradoxically come to mean prosperity for nearly all (albeit not necessarily equality) when Liechtenstein turned into an advanced economy based on services and high-tech manufacturing. An important feature of Liechtenstein's development was a significant shift from economic activities requiring relatively large amounts of land to those requiring relatively little physical space (MERKI [2007b, p. 232]).<sup>15</sup> The land became far more productive as much more wealth could be generated on much smaller plots of land. From banking and finance through tourism and the sale of stamps or even citizenships all the way to highly advanced precision industries, the new economy was characterized by very efficient and relatively minimal use of the physical space and natural resources of the Principality.<sup>16</sup>

As land ownership remained very widespread during the post-war economic boom (MERKI [2007b, pp. 56–57], RATON [1970, p. 122], WYTRZENS [1996, pp. 110–113]) and because Liechtenstein's small size means that practically all land lies within an easy access to both the new economic opportunities and the key infrastructure that makes it valuable, the benefits of the rising land values came to most, if not all, families in the Principality. On the one hand, many people could make substantial profits from selling or leasing their lands. As RATON [1970, p. 122] observed, rapidly rising land values “lure[d] the farmers to sell their land” and to “retire prematurely”. On the other hand, until recently, most Liechtensteiners did not need to worry about being able to afford rapidly rising rents as they could reside on their own land. Furthermore, when it comes to commercial land, much of it has been continuously owned and leased out by the political communities or old village cooperatives. As such, a significant portion of the population has been able to benefit directly, or indirectly, from the rapidly rising values of both residential and at least some of the commercial lands in their Principality.

The potential negative socio-economic consequences of rising land values in the system of private land ownership have been mitigated by a number of additional factors. First, despite tremendous economic growth, the Principality's resident population (albeit not the labour force), while larger than a century ago, has remained very small. The preservation of a very small population size has been possible thanks to a combination of geographic, legal and political factors. Ever since the beginning of its rapid economic development

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<sup>15</sup> In addition to the limited resource base, this development has been further intensified by the scarce labour supply. Despite relatively high numbers of inward commuters (that nowadays constitute a higher proportion of workers than Liechtenstein's permanent residents), labour supply has remained limited and wages have remained high. In consequence, many of the big industrial enterprises have shifted some of their most labour (and resource or land) intensive production abroad while keeping such highly productive (albeit non-land-intensive) activities as research and development, management and distribution in Liechtenstein (MERKI [2007b, p. 232]).

<sup>16</sup> This type of economic transformation is in fact in line with what small state economics would suggest (MERKI [2007a, p. 216]).

Liechtenstein has had strict legal barriers to permanent immigration. In consideration of its very small size, it has been allowed to retain them despite its membership in the European Economic Area (EEA), which normally requires an adherence to the principle of unrestricted freedom of movement (FROMMELT AND GSTÖHL [2011]). At the same time, Liechtenstein's geographic proximity to Switzerland, Austria and Germany has created a unique opportunity for having a large number of workers commuting from other countries (CATUDAL [1975], FROMMELT AND GSTÖHL [2011]). Second, Liechtenstein has traditionally made it very difficult, if not impossible, for non-residents to acquire land inside the Principality (BEATTIE [2004, pp. 166–171]).<sup>17</sup> As in the case of freedom of movement, the European Community agreed to granting Liechtenstein an exception in this area due to its severe geographic constraints (FROMMELT AND GSTÖHL [2011, pp. 36–37]). As a result, only a very small proportion of land in Liechtenstein is currently owned by foreigners and land speculation by foreign investors is virtually impossible. In fact, acquisition of new land remains strictly regulated even for Liechtenstein residents.<sup>18</sup>

### 3. SPATIAL CHALLENGES AND LAND VALUE TAX AS A REMEDY

#### 3.1. Cracks in the System

Widespread land ownership, suitable geography and geopolitical circumstances, barriers to land purchases by non-residents and other above-mentioned factors have allowed Liechtenstein to remain relatively stable, prosperous and free of any major socio-economic problems. However, there are signs of growing cracks in the system. The last decades have seen a steady increase (both nominal and proportional) in the number of Liechtensteiners who do not own any land in their country (see the parliament address by Doris Frommelt on 17.02.11 in LANDTAG DES FÜRSTENTUMS LIECHTENSTEIN [2011a]). Already back in the 1960s it was noted that the continuous increase in land values could make it impossible for young Liechtensteiners to become land and home owners (BEATTIE [2004, p. 146]). And indeed, while land ownership remains relatively widespread, buying new land today is beyond the reach of all but the richest of Liechtenstein's citizens. This new situation was recognized by Prince Hans-Adam II, who warned in his annual address to

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<sup>17</sup> Only people who are allowed to live in Liechtenstein may purchase land in Liechtenstein. Citizens from the EU and EEA countries and Switzerland, who become residents in Liechtenstein, are subject to the same regulations (with a few minor exceptions) as Liechtenstein's citizens when it comes to purchasing land. People from other nations (i.e. of non-EU/EEA citizenships) may only buy land after having lived for at least ten years in Liechtenstein (LIECHTENSTEINISCHES LANDESGESETZBLATT [1993]).

<sup>18</sup> The national law on the trade of land in Liechtenstein ("Grundverkehrsgesetz", LIECHTENSTEINISCHES LANDESGESETZBLATT [1993]) regulates the acquisition of land. In order to obtain the land registry office's permission for a land purchase, the purchaser must verify a "justified interest". The interest is considered justified if the land satisfies a necessity of habitation or recreation (the buyer must use the housing object on the land), an entrepreneurial or agricultural need or if the land is to be used for a superstructure of public interest or social housing (FINANZMARKTAUFSICHT LIECHTENSTEIN [2013, pp. 30–31]). There exist, however, some exceptions such as those for trades within the family or compulsory auctions. Inventory land purchases by persons or corporations are not allowed, in general. Yet some of the wealthier residents manage to find loopholes and ways to avoid the constraints of these regulations, which is also considered as a problem by the Hereditary Prince Alois (VATERLAND MAGAZIN [2014, pp. 19–20]).

the parliament in 1991 that land affordability was becoming a serious problem for a significant number of Liechtenstein's citizens. The Prince blamed the fiscal privileges of the land owners as the main factor behind the high increases in land prices and called for a fiscal reform to remove those privileges (WYTRZENS [1996, pp. 124–125]).

Although the population increase has been slow considering the rate of economic growth, the pressure on both residential and commercial land has been steadily and rapidly increasing. For the first time in history, some of Liechtenstein's citizens themselves have now started moving to neighbouring states to commute to work in the Principality because of the unaffordability of land and high rents inside their country (NEUE ZÜRCHER ZEITUNG [2012], LANDTAG DES FÜRSTENTUMS LIECHTENSTEIN [2011b], LIECHTENSTEINER VATERLAND [2010], WYTRZENS [1996, pp. 124–125]). Due to the specific characteristics of Liechtenstein's political system, this situation had negative political consequences at the communal level as only those with a permanent address have a right to vote and participate in the political life of their commune. In other words, housing unaffordability is becoming an obstacle to continuous membership in one's local political community. The increasing number of residents and commuters (residents and cross-borderers) is also seen more and more as a burden on the country's real estate market and infrastructure (see the discussions in parliament from 18.05.11 in LANDTAG DES FÜRSTENTUMS LIECHTENSTEIN [2011b]), in particular as most of the workers commuting from abroad do not pay their income taxes in Liechtenstein.

In addition to these issues, some scholars have noted the (so far limited) rise in poverty with a new phenomenon of the so-called "working poor", i.e. people who can barely make a decent living standard (by local standard of comfort) despite having a full- or near full-time job (BEATTIE [2004, p. 346]). Furthermore, at least partially in response to rising costs of maintaining infrastructure and welfare system, certain indirect taxes (such as the VAT) on genuine capital and labour and contributions to social insurances, while still low in comparison with the rest of Europe, have been on the rise further affecting the working population and productive enterprises. The problems of uneven distribution of benefits derived from land ownership have therefore started having more and more obvious negative socio-economic and political consequences.

### **3.2. More Problems: Land Use and Spatial Planning**

Another aspect of the growing land-related problems in Liechtenstein is the issue of inefficient and unsustainable land use throughout the Principality. Ever since the beginning of the post-war economic growth, the combination of largely unconditional private land ownership with a virtual lack of incentives for efficient land use have resulted in highly erratic, uneven and largely unsustainable patterns of land use. Despite the fact that Liechtenstein is an extraordinarily small country with only 160 km<sup>2</sup> of land area, most of which comprises of high mountains (which makes only about 50 km<sup>2</sup> of the country inhabitable), the economic development has been allowed to be accompanied by two contrasting tendencies of exhaustive (albeit usually not necessarily efficient) use of land in some, often sub-optimal, places and concurrent unproductive hoarding of highly valuable land in other

locations (NEUE ZÜRCHER ZEITUNG [2012], BROGGI [2001, p. 40], WALCH [2001, p. 17]). Throughout the last decades, short-term oriented and inefficient use of land (in agriculture, production or in the very inefficient usage of residential) has been highly prioritized over the long-term goals of a sustainable spatial development, that include efficient land use, preservation of land for future infrastructural, commercial and residential projects and protection of the natural environment. As explained below, these tendencies have been intensified and further entrenched by the inefficient taxation of land in relation to other property taxes, which in itself plays a significant role in the fragmentation, sprawl and hoarding of unimproved land (LÖHR [2008, p. 122]).

Between 1982 and 2008, the settled area rose by more than 33% (at the cost of farmland and meadows) with an accelerating pace in the more recent years, which is in contrast to neighbouring Switzerland.<sup>19</sup> On average, the settlement area expands by 500 m<sup>2</sup> a day, which is fairly dramatic for such a small country. While the number of inhabitants increased from 16'628 in 1960 to 36'149 in 2010 (a rise of about 120%), the horizontal usage of ground for residential and commercial purposes jumped by more than 700% in the same period of time. From 1982 to 2008, the area of land occupied for commercial or residential purposes was increasing by approximately 180'000 m<sup>2</sup> per year, largely at the expense of the agricultural areas, which in the same period decreased by almost 5 km<sup>2</sup> in total (that is about 700 soccer fields). At the same time, the built-up area increased by 56% while the paved area (primarily for roads, parking areas etc.) increased by 38%. In addition to the increasing population, these developments resulted mainly from the rising per capita land usage, the boost in employment (the number of employed people in Liechtenstein rose from 9'096 in 1960 to 34'334 in 2010), and the (related) strong rise in mobility (number of inward commuters rose from 1'700 in 1960 to 17'570 in 2010). Yet, the key problem associated with these changes has been the relatively very low population density and highly inefficient land use within the new settlement areas. A phenomenon of horizontal, low-density land use expansion (urban sprawl) has been heavily criticized even when taking place in large countries (e.g. HARRISON [2006, pp. 41–42]). In the case of tiny Liechtenstein it seems particularly unsustainable.

Quite unsurprisingly, the significant increases in population numbers and production accompanied by far from efficient land use (or even land hoarding) have, as already noted, caused a dramatic increase in land prices across the Principality. According to official estimates, unimproved land values rose by almost 600% in real terms from 1976 until 2009 (own calculations and FINANZMARKTAUFSICHT LIECHTENSTEIN [2013, p. 20]).<sup>20</sup> Paradoxically, such large increments only further discourage efficient land use as land owners are more likely to withhold their lands from productive use in the expectation of a higher sale price (WASSERMAN [2003, p. 32]).

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<sup>19</sup> For details and figures relating to this paragraph see BROGGI [2011], WYTRZENS [2011], REGIERUNG DES FÜRSTENTUMS LIECHTENSTEIN [2008], REGIERUNG DES FÜRSTENTUMS LIECHTENSTEIN [2012], and RHEINBERGER [2012]).

<sup>20</sup> Which is a substantially higher increase than in the neighbouring countries Switzerland (WYTRZENS [1996, pp. 218–221]) and Austria (FINANZMARKTAUFSICHT LIECHTENSTEIN [2013, pp. 6–7]).

### 3.3. Challenges to Reform and Attempted Remedies

It seems that the country might be moving slowly back into the thought-to-be-long-gone situation where not owning land in the Principality meant emigration or virtual servitude. At the very least, the rapidly rising values of land held by a decreasing percentage of the population have the potential to significantly increase socio-economic inequalities (FROMMELT AND GSTÖHL [2011, p. 38]). At the same time, the unsustainable model of land use creates real problems to the continuous economic growth, funding and maintaining of public infrastructure and environmental protection. There is thus a growing realization inside the country that the “classic market rules of supply and demand” perhaps do not work when it comes to land as its supply is fixed (as argued by Doris Frommelt in LANDTAG DES FÜRSTENTUMS LIECHTENSTEIN [2011a])<sup>21</sup> and that a serious reform of the current system is necessary.

However, despite increasing awareness of the unsustainable nature and negative effects of the current model of land use, reforming the system has proven politically difficult. In particular, successive governments have found it almost impossible to directly and administratively affect land usage in the Principality through such mechanisms as national spatial planning regulations.<sup>22</sup> While spatial planning can arguably do little to alleviate the problems of land ownership-related inequalities, it has been one of the most popularly suggested solutions to the equally pressing matter of unsustainable and chaotic land use in the Principality. Already in the 1970s, the Prince of Liechtenstein, Franz-Josef II, called for an anticipatory national law on spatial planning (WALCH [2001, p. 16]). Similarly, in the course of the last decades the government has made several (largely unsuccessful) attempts at introducing effective national-level spatial planning schemes. Yet, despite a visible increase in the public interest in this matter (STRITTMATTER PARTNER AG [2006, p. 8], REGIERUNG DES FÜRSTENTUMS LIECHTENSTEIN [2012, pp. 26–27], REGIERUNG DES FÜRSTENTUMS LIECHTENSTEIN [2014, p. 21], VEREIN AGGLOMERATION WERDENBERG-LIECHTENSTEIN [2012, p. 46]), apart from some loose attempts such as the national planning scheme “Landesrichtplan” (REGIERUNG DES FÜRSTENTUMS LIECHTENSTEIN [2011]) and the temporary introduction of a national planning unit, no effective regulation has been successfully implemented.

Even though there were numerous attempts to introduce it, there is still no national spatial planning law in force. In 2002, Liechtenstein’s parliament passed the first national spatial planning law, carefully drafted and prepared by the government officials in the

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<sup>21</sup> Mentionable contributions on the development and situation of the land market in Liechtenstein are WYTRZENS [1996] and FINANZMARKTAUFSICHT LIECHTENSTEIN [2013].

<sup>22</sup> By contrast, municipal governments managed to gain large control over spatial planning regulations following the legislative changes in the late 1940s. While the national government might have been aiming for a more coherent, national system, most decision-making power was placed within the municipalities. Not surprisingly, the wishes and interests of local landowners were of primary importance in drafting the municipal regulations and soon large parts of the country were designated (in various, often inconsistent and unclear, ways as each municipality was free to adopt its own definitions and specific rules) as suitable for low-density housing (WYTRZENS [1996, pp. 151–153]). When combined with the lack of any significant fiscal incentives to efficient land use, these regulations only added fuel to the slowly emerging erratic and patchy patterns of urban development, inefficient land use and urban sprawl.

course of several years (if not decades), with 24 to 1 votes. However, the citizens of Liechtenstein rejected the law in a national referendum with almost 75% voting against it (BROGGI [2011, pp. 107–108]).<sup>23</sup>

The referendum demonstrated several obstacles to coordinated and efficient spatial planning in Liechtenstein. In general, it seems that the problem with trying to reform the system through clear and unambiguous spatial regulations is that it is a highly “visible” approach that presents a rapid and direct “assault” on the old patterns of behaviour and entrenched interests. In particular, all attempts to introduce national spatial planning rules usually face the municipalities’ opposition, which are afraid of losing power and facing increased regulations. There has also been an ongoing opposition on the individual level: In the context of spatial planning, a type of prisoner’s dilemma behaviour can be detected (WYTRZENS [1996, p. 238]), meaning that everyone admits the importance of spatial planning rules but also wants to be the only one with exceptions (leading to more exceptions than rules or no rules at all). The result is only little support for the introduction of binding spatial rules.<sup>24</sup> This problem is even worse when entire lobby groups appear who may profit from the lack of binding spatial planning rules, which leads to a so-called “interest-led anarchy” (WYTRZENS [1996, p. 151]). Somewhat paradoxically, social cohesion in a small country, while conducive to economic progress, might be an obstacle to effective spatial planning, which is meant to address the problems that are particularly obvious and serious in a country with such severe geographic constraints (BROGGI [2001, 39], BROGGI [2011, p. 106], WYTRZENS [1996, p. 110]). There seems to be an informal opposition to spatial planning of a coalition of the middle-class owners of small plots of land and the very wealthy. It is precarious for politicians to act against such interests.

In light of the strong opposition to spatial planning, the efforts to remedy the land situation in Liechtenstein have so far concentrated on regulations on land sales and transfers, housing subsidies, construction of social housing, and a number of modest fiscal measures. As the first three types of solutions can be only temporary and do not address the root of the problem, only the fiscal measures can be seen as a potentially viable method of addressing the land problems in Liechtenstein. And indeed, several scholars have recognized the need to introduce both a generally more efficient land taxing system in Liechtenstein (BROGGI [2011, p. 112], WALCH [2001, p. 25], WYTRZENS [1996, p. 253]) and some methods

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<sup>23</sup> The failure of the new legislation was primarily due to the significant opposition of municipalities’ representatives (BROGGI [2011, p. 107]). The opposition against a more efficient taxation of land became also obvious when in 1990 the people voted against a transformed property tax system (76% no). Arguably the resistance’s main reason in 1990 was the connected re-estimation of all land values. At the present time, the current reform efforts of Liechtenstein’s government in the fiscal treatment of (real) estates have been limited to the taxation of real estates, not ground prices, but aim at a more accurate capture of the actual values of the real estates in Liechtenstein; some if not most of them were also subject to heavy undervaluation (FINANZMARKTAUFSICHT LIECHTENSTEIN [2013, p. 7]).

<sup>24</sup> Any reform is made further difficult because of the long tradition of inheritance and division of land between descendants and very high cultural value attached to (ideally, unconditional) land ownership that goes back to the agricultural era (WYTRZENS [1996, pp. 110–112]).

of capturing the increases in land values due to infrastructural investments and changes to spatial planning (BROGGI [2007, pp. 23–25], WALCH [2001, pp. 25–26]).

Unfortunately, the efforts to tax land values in the Principality have suffered from several limitations. The history of land taxes in Liechtenstein goes back to the beginnings of its existence as a distinct political entity (sources for the following evolution of land taxes: OSPALT [1974] and BRUNHART [2013b, pp. 902–907]). Since the early 19<sup>th</sup> century, land has been taxed together with the immovable property at a rate of 1% of the estimated value. This tax constituted the main part of the Principality's revenue at that time. In 1865, a new provisional tax law was introduced that included provisions for taxing both land and its improvements. While the tax rate remained low, it was perceived as a burden on at least some of the country's farmers. A new tax regime was introduced in 1923, which essentially lasted (apart from a few minor changes) until 2010. It included, besides other forms of taxes, provisions for taxing wealth, including land and buildings. In the most recent years the tax rates on property were between 0.162% and 0.851% (with the tax exempt amount set at about 70'000 Swiss Francs). Apart from the fact that these taxes fell to a certain extent on the products of labour and apart from the low tax rate, the key problem with the wealth tax has been the extreme undervaluation of the land, especially in the case of old estates (NEUE ZÜRCHER ZEITUNG [2012], BROGGI [1986, pp. 271–272], WALCH [2001, p. 25], WYTRZENS [1996, pp. 124, 141]). In general, data on land use, ownership and prices is scarce or simply not existent in Liechtenstein and no effective attempts to develop better official statistics have been made so far (WYTRZENS [2011, p. 430]). The officially registered values of land in the Principality have been very low and in most cases do not correspond with the actual market prices.<sup>25</sup> In effect, only a very small portion of the actual value of the land has been captured by the tax system in Liechtenstein. In addition to the land tax, the government introduced a tax on the profits on the sale of land which was meant as a solution to the problem of land speculation. The problem was that the tax rate was made, as an incentive against speculation, negatively correlated to the length of time a piece of land was held, which significantly increased the incentive for holding idle land (WYTRZENS [1996, p. 147]).<sup>26</sup>

In 2011 a reformed tax system was introduced. All kinds of properties, including land, are now taxed on the base of an assumed income derived from their ownership. This assumed income is 4% of the net property value (with net property being the estimated property value minus debts). This sum is then added to the income derived from labour. Only then is the total income taxed. The tax rate on the total income is between 3.1% (at the 50'000 Swiss Franc threshold, though it can be reduced to 0% in case of families with numerous

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<sup>25</sup> It is worth noting that estimating actual land values can prove challenging and difficult in such a small market. At the same time, the experiences of many small jurisdictions, and often far poorer than Liechtenstein, suggest that it is far from impossible (e.g. COPES AND RYBECK [2000]).

<sup>26</sup> This negative correlation is no longer present in the newly reformed tax system explained in the next paragraph of the text.



children) and 10.1% (for total incomes greater than 200'000 Swiss Francs).<sup>27</sup> Still, the problem of severe undervaluation<sup>28</sup> of land property remains firmly in place. Consequently, there is still a greater incentive for “investing” in land as opposed to stocks or productive enterprises as the de facto tax on land is relatively insignificant (WYTRZENS [1996, 146]).

### 3.4. Land Value Tax as a Remedy

In order to understand how to address the above problems it is important to acknowledge that “the value of privately held land increases as a result of public investments in infrastructure, publicly approved changes in land use, or broader changes in the community such as population growth” (WALTERS [2013, p. 5]). The high value of land in Liechtenstein results from its government’s successful policies, legislation and expenditure on vital infrastructure (such as roads, public transport, water supply), public services (such as justice, security, education) and even protection from floods and stone avalanches (RATON [1970, pp.127–128]) – as well as from the effort and entrepreneurship of Liechtenstein’s workers and businessmen. Consequently, it only seems just that at least some part of the very high and constantly rising value of the land should be recaptured by the community for the benefit of all residents. The question is how to do so “with fairness and without destroying the incentive to work and invest” (WETZEL [2004]).

Some countries have tried land redistribution programs (HARRIS [1969, p. 50], LISSNER [1957, p. 431]). Others, such as the South Pacific microstates (e.g. the Cook Islands), have tried to enforce equality in land ownership through making it illegal for anyone to sell or gift his or her land (AUSTRALIAN AGENCY FOR INTERNATIONAL DEVELOPMENT [2008], INGRAM [2004]). The problem with the land redistribution approach is that it tends to merely create a new class of landowners and thus continue to exclude landless citizens from enjoying the benefits to which all are entitled (WETZEL [2004]). The issues with the South Pacific approach is that it creates serious obstacles to growth and development, puts a lot of land out of use and ignores the fact that land values’ increases vary across the country, regardless of how small it is (CROCOMBE, TONGIA, AND ARAITIA [2008], LEVI AND BOYDELL [2003]). A simple tax on the unimproved land<sup>29</sup> values (Land Value Tax or simply LVT) is a far more economically efficient and fair way of making everybody benefit from the high land values resulting from public investments and community’s efforts.

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<sup>27</sup> These rates are calculated by using the average rate across all the eleven municipalities, including the initial federal tax and the additional tax that the municipalities may raise. This additional municipality tax lies currently between 150% and 200% of the initial federal tax (an additional tax rate of 160% has been assumed for the tax rate examples here) (AMT FÜR STATISTIK [2014, p. 52]).

<sup>28</sup> This is an additional source of unfairness, as the extent of undervaluation may vary across the country and even within municipalities.

<sup>29</sup> The term “unimproved land values” refers to the value of bare land, i.e. exclusive of the value of any man-made structures or ameliorations. The more common “property taxes” fall on both the value of unimproved land and the value of man-made structures (such as residential or commercial buildings). LVT only falls on the former and as such it does not punish land holders for adding improvements to their land.

As STIGLITZ [2014, p. 8], a Nobel Laureate<sup>30</sup> and one of the best known advocates for LVT, notes: “One of the general principles of taxation is that one should tax factors that are inelastic in supply, since there are no adverse supply side effects. Land does not disappear when it is taxed.”<sup>31</sup> The concept itself has received an exceptionally broad acceptance across the various economic disciplines and schools of thought and its supporters include even such tax-unfriendly economists as Milton Friedman (LÖHR AND HARRISON [2013, p. 706], LÖHR [2008, p. 126]). As when it comes to land the elasticity of supply is very low (or even zero) and as only windfall profits are affected by taxes on land values, the fiscal dead weight loss is minimal with such taxes. Unlike the more common property tax, LVT is a tax that falls on the value of the land only. In consequence, it not only does not punish land users for any improvements they might make on their sites (houses, office buildings, gardens, etc.), but in fact adds a cost to keeping land idle. RYBECK [2004, p. 253] explains that a tax on land values cannot be seen as an additional cost of production as unlike buildings, land is not produced. He notes that because “property owners cannot avoid a tax on land by producing less land (and as they cannot move it from a high-tax jurisdiction to low-tax jurisdiction)” (ibid.) LVT is simply a cost of ownership. Therefore, a tax on unimproved land values lowers incentives for speculation or idle holding of land and encourages landowners to put their land into the most productive use (FOLDVARY [2006]). When more land is made available for use, new economic opportunities are created, it becomes cheaper to afford a place to live or work, and space is used more efficiently (LÖHR AND HARRISON [2013, p. 708], LÖHR [2008, p. 128]). A more efficient use of land is not only beneficial to economic growth and housing affordability, but also has a potential to substantially lower the costs of public infrastructure and to significantly reduce the burden on the natural environment (LÖHR [2008], MATHIS AND ZECH [1982], TIDEMAN [1998], WALTERS [2013], WETZEL [2004]).<sup>32</sup>

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<sup>30</sup> Stiglitz together with Arnott (ARNOTT AND STIGLITZ [1979]) and Atkinson (ATKINSON AND STIGLITZ [1987]) are known for the formulation of the so-called “Henry George Theorem” which demonstrates and “proves that in a community with optimal population, the land rent equals the value of the community’s public goods” (FOLDVARY [2006, p. 2]).

<sup>31</sup> Land is a special and unique type of resource as it is not only “immobile” and “finite”, but it is also “a fundamental and natural factor in any area of business, taking a direct or indirect part in the production of all goods and services” (RASLANAS, ZAVADSKAS, AND KAKLAUSKAS [2010, p. 61]).

<sup>32</sup> According to HIESS AND PFEFFERKORN [2011], urban sprawl may increase infrastructure costs per capita up to 300% compared to a dense settlement. A tax on unimproved land values reduces sprawl and relieves pressures on the natural environment and rural areas by creating incentives for more compact, land-efficient development. With LVT in place “the greatest economic imperative to develop land will exist where land values are highest, adjacent to existing infrastructure and amenities” (RYBECK [2004, p. 253]). At the same time “areas distant from infrastructure will have low land values and taxes and, thus less economic motivation for development” (ibid.). As “the demand for developed space is limited at any given time, the greater utilization of land adjacent to existing infrastructure will help reduce the demand for development in outlying areas” (ibid.). In consequence, the implementation of LVT could both encourage more compact urban structures and help to prevent “premature urbanization of the rural areas” (ibid.). Having more compact and densely populated municipalities would likely not only “help to preserve nature and landscapes”, but also bring a reduction in the use of roads and energy which in turn would lower pollution, infrastructure spending and transport costs (RASLANAS ET AL. [2010, p. 65]).

What is more, LVT would allow minimizing<sup>33</sup> economically harmful taxes on labour, production and investment making any country willing to implement it a very attractive location for businesses and productive individuals. This is of particular importance to Liechtenstein which, for most of its recent history, has thrived also due to its relatively low income and company taxes. As it is impossible to hide land, taxing its value is also far easier, more transparent and cheaper than taxing general wealth or income.<sup>34</sup> LVT hence reduces the need for bureaucracy, lawyers and accountants – both for the government and the private sector (FOLDVARY [2006], WETZEL [2004]). As summarized by Dan Sullivan (SULLIVAN [n.d.]):

*“Land value tax reconciles free-market principles with the concept of the earth as a commons. It is the most progressive tax, because it is the only tax that is not passed on to users. It prevents the monopolization of land, stabilizes real estate prices, promotes economic vitality and efficient land use, and has been recognized for millennia as the most ethical tax. It is easily assessed and based entirely on public information. It also correlates better with benefits received than any other broad-based tax. All government expenditures that are not complete wastes of money increase or maintain land values.”*

Importantly, from the point of view of political feasibility, LVT seems easier to introduce than other solutions to inefficient or unsustainable land use, such as zoning or spatial planning. Unlike zoning, its introduction can be gradual and accompanied by concurrent decreases in other types of fiscal burdens, which makes it potentially much more politically acceptable to the wider electorate. What is more, its effects on particular land owners are in line with their land’s value and not merely in accordance to arbitrary political decisions. In the context of Liechtenstein, the positive effects of LVT on mitigating urban sprawl and inefficient land use could decrease the necessity of having comprehensive spatial planning regulations. At the same time, introducing more effective spatial regulations aimed at preservation or creation of green or recreational areas (if it is considered undesirable for the public to own them) would not only be more feasible due to better and more efficient land use in areas dedicated for residential and commercial use, but also potentially financially beneficial to the whole country. The examples of various public parks suggest that the presence of well-managed, open, green spaces has the potential to tremendously increase the values of nearby residential and commercial lands (APPLESEED [2009]).

Finally, LVT does not need to threaten the power of local municipalities. If anything, when collected locally with a portion of it transferred to the national government, it can provide Liechtenstein’s municipalities with a good mechanism for capturing some of the value of

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<sup>33</sup> Yet, it is impossible for Liechtenstein to eliminate a great number of taxes due to the customs treaty (and other agreements) with Switzerland. One prominent example is the Value Added Tax (VAT) which is collected collectively by both countries and which, as per agreement, cannot be collected separately or at different rates. Other examples include taxes on gas, alcohol and tobacco.

<sup>34</sup> Furthermore, LVT also follows the fiscal ability-to-pay principle as it is proportional to the value of land held by those liable to pay it (LÖHR [2008, p. 129]).

their own investments and for benefiting from the country's general expenditures and prosperity. One solution could be for the national government to collect a certain percentage of land values across the Principality, while at the same time permitting local municipalities to determine how much of the remaining portion they wish to collect through an additional municipal tax rate and how they wish to spend it. Local municipalities could also be allowed to retain certain autonomy when it comes to spatial planning and determining which of the lands within their boundaries should be preserved for green or recreational purposes (and consequently subject to de facto lower LVT), or to set their municipal LVT rates in accordance with their own (density) goals and priorities.

While most of the revenue from LVT can be used to finance the government and public investments, a portion of it could be distributed directly, and on a per capita basis, to the citizens in the form of a citizens' dividend (BATT [2012], SMITH AND GIHRING [2006]). The dividend could serve as a transparent and effective replacement of the more bureaucratic welfare system and a way for allowing Liechtenstein's citizens to enjoy some of the benefits of his or her country's natural opportunities more in line with their personal preferences. A portion of the dividend could also be used to offset at least some of tax liabilities of those land owners with small parcels and even more modest incomes, who could in any case benefit from the lowering of other taxes. Also, if socially desired, elderly property owners could be allowed to defer and roll up their tax liabilities until they pass away and their property is sold or inherited.

Interestingly, LVT has also been a matter of debate in Liechtenstein's neighbouring countries. For instance, Avenir Suisse, perhaps the most important private economic think tank in Switzerland, has repeatedly advocated the land value tax as an important element of a proposed reform of Switzerland's tax system citing the efficiency of taxing land as an immobile factor (SALVI AND ZOBRIST [2013, pp. 87–90, 163–164]). Avenir Suisse researchers have highlighted the superiority of a pure land value tax over an ordinary property tax or general wealth taxes not only when it comes to efficiency and growth incentives, but also its progressive character and social compatibility.

Some scholars, such as LÖHR [2008], suggested LVT for Germany. LÖHR AND HARRISON [2013] even claimed that LVT could serve as an effective base for a tax redistribution mechanism between core and peripheral countries of the European Union. This logic could also be applied to Liechtenstein's core (e.g. Schaan, Vaduz) and peripheral municipalities (e.g. Balzers, Planken, Triesenberg, Ruggell). In fact, looking further away from Liechtenstein, some countries, such as Italy, the United States (BROGGI [2011, p. 112]), Estonia (COCCONCELLI AND MEDDA [2013], TOMSON [2000]), Taiwan (LAM [2000]), Singapore or Hong Kong (HUI, HO, AND HO [2004], PHANG [1996], PHANG [2000]) have already introduced mechanisms for capturing unimproved land values, or at least their increases due to certain public expenditures. Even closer to Liechtenstein, some cantons in Switzerland know the procedure of taxing land value increases that arise from new zoning regulations or public infrastructure projects (ECOPLAN [2013]).

#### 4. CONCLUSIONS

The political and economic success of Liechtenstein has been nothing short of remarkable. A tiny and resourceless principality has managed not only to survive as a sovereign polity, but also to flourish economically. Paradoxically, the country's small size and geographic insignificance have proven to be crucial to its security and prosperity. Liechtenstein has remained independent and developed economically through a mixture of unique historical circumstances, wise domestic policies and favourable diplomatic arrangements, most of which have either resulted or been necessitated or permitted by the country's severe geographic and demographic constraints. The economic growth of Liechtenstein has been accompanied by a tremendous growth in land values throughout the Principality. However, unlike in many other, larger economies, the negative socio-economic effect of this increase have been relatively benign or even absent for most of Liechtenstein's recent history. What explains this situation is a combination of various geographic, legal and political factors. While these factors have mitigated the potential problems associated with rapidly rising land values, it is becoming more and more obvious that they are becoming insufficient barriers to growing problems of housing unaffordability, pollution, urban sprawl and socio-economic inequality. The argument of this paper is that one solution, implemented with or without an overdue new national spatial planning scheme, to these issues could be a fiscal reform that would aim at capturing and using for the public benefit a greater portion of the unimproved land values in the Principality (this would also include the re-estimation of all registered land values). The idea of a simple tax on unimproved land values (LVT) enjoys an extraordinarily broad acceptance and support in both the fields of theoretical and applied public economics and among scientists specialising in regional planning. In Liechtenstein, in addition to being a suitable and reliable source of public revenue, a tax on unimproved land values could result in a more efficient land use, mitigated urban sprawl, lower burden on the natural environment, reduced risk of real estate bubbles and a greater housing affordability; and all this without undermining the foundations of the Liechtenstein's prosperity. If anything, LVT could be seen as a powerful tool capable of sustaining economic growth benefiting all citizens of the Principality.

Unfortunately, it is likely that any reform aimed at an effective capturing of the unimproved land values in the Principality will likely meet with a strong opposition from those individuals and groups who currently benefit the most from the increases in land values due to government investment and community's entrepreneurship and for whom these benefits seem greater than those they could derive from lower taxes on labour and businesses, fairer welfare system, reduced urban sprawl, better environmental protection and healthy public finances. OSPELT [1974, pp. 157–158] demonstrates in a historical example, the hunger crisis of 1816, that the opposition in Liechtenstein to the planned land reform could only be lessened in the face of such a dramatic event (or natural disaster). The introduced land reform subsequently led to a significant increase in both food production and living standards. Hopefully, this time the necessary and long-overdue reforms to the way in which Liechtenstein manages its land will not be postponed until the time when the

burden of pollution, urban sprawl, reduced economic competitiveness, opportunities and standards of living yet again makes Liechtensteiners leave their country for a better life elsewhere.

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