Deterministic Political Competition and Regional Economic Outcomes When the Creative Class Sets Tax Policy

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15 January 2025

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Abstract

We analyze how deterministic political competition between the elites and the so-called creative class shapes economic outcomes in a stylized region. By deterministic, we mean a case where political power has shifted from the elites to the creative class with probability one. There are three groups in our region: workers, creative class members, and the elites. Unlike previous studies, tax policy in our region is set not by the elites but instead by the creative class. In this setting, we first present a counterintuitive result in which the creative class prefers to tax itself, and not the elites or the workers, with the tax proceeds being redistributed also to itself via lump-sum transfers. Second, we explain why this counterintuitive result makes sense. Finally, we discuss whether the above counterintuitive result will hold if the proceeds of taxation are redistributed using lump-sum transfers to all the groups in our region and not just to the creative class.

1. Introduction

1.1. Preliminaries

In the vibrant tapestry of a creative region, where innovation and artistic expression intertwine, the interplay between political competition and tax policy becomes a delicate balancing act. The allure of a tax-friendly environment, often touted as a panacea for attracting businesses and talent, can be a powerful political tool (Batabyal and Yoo 2023). Yet, the true impact of such policies on the creative ecosystem is a complex matter, fraught with both benefits and potential pitfalls (Bartik 2005).

On the one hand, low tax rates can indeed stimulate economic activity, encouraging entrepreneurship and investment (Lee and Gordon 2005). For creative industries, where start-ups and independent artists are the lifeblood, a favorable tax climate can provide a much-needed boost. By reducing the financial burden on businesses and individuals, governments can create a more conducive environment for experimentation, risk-taking, and the development of new ideas. This can lead to increased innovation, job creation, and a thriving cultural scene (Buettner and Janeba 2016).

On the other, the pursuit of tax competition can also have unintended consequences. In a region where creativity and cultural heritage are paramount, excessive tax cuts may lead to a neglect of essential public services that support the arts and cultural institutions. Museums, libraries, and public spaces, which play a vital role in nurturing

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creativity and fostering a sense of community, may suffer from a lack of funding (Giroux 2005). Moreover, a relentless focus on tax incentives can create a distorted economic landscape, where short-term gains may come at the expense of long-term sustainability and social equity.

Ultimately, the effectiveness of tax policy in a creative region depends on a subtle balance. While a competitive tax environment can be a powerful tool for attracting businesses and talent, it is essential to ensure that such policies do not undermine the region's cultural identity or compromise the well-being of its residents (Peck 2005).[4] By carefully considering the long-term implications of tax cuts and investing in public services that support creativity and innovation, policymakers can create a more equitable and sustainable environment for the region's creative industries to thrive.

Given this background about the nexuses between political competition and tax policy in creative regions, it is important to understand two significant points made by the urbanist Richard Florida (2002, 2005, 2006). First, regions that want to thrive economically in this era of globalization need to do all they can to attract and retain members of the so-called creative class. In this regard, the creative class "consists of people who add economic value through their creativity" (Florida, 2002, p. 68). This class is made

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[4]

See Vusal and Zohrab (2024) for an interesting discussion of the connections between monetary transfers, tax revenues, and the tax environment in post-socialist nations.

up of professionals such as doctors, lawyers, scientists, engineers, university professors, and, markedly, bohemians such as artists, musicians, and sculptors.

Second, attracting these members is essential because they possess creative capital, which is the "intrinsically human ability to create new ideas, new technologies, new business models, new cultural forms, and whole new industries that really [matter]" (Florida, 2005, p. 32). In other words, and as pointed out by Batabyal and Nijkamp (2023), the creative capital possessing members of the creative class are a critical driver of regional economic growth and development.

If one endorses this Floridian view of regional economic growth and development then it is rather natural to ask how the links between the troika of political competition, tax policy, and economic outcomes play out in a region that is creative in the sense of Richard Florida and where entrepreneurial creative class members are a major part of the underlying economy.

In this regard, we can pose the following four questions. First, what happens to economic outcomes in a creative region in which tax policy is determined *not* by the elites in this region but instead by the creative class? Second, might there exist a counterintuitive result in which the creative class prefers to tax itself, *instead* of the elites or workers, with the tax proceeds being redistributed also to itself through lump-sum transfers? Third, how might we explain the existence of this counterintuitive result? Finally, will the above

counterintuitive result hold if the proceeds of taxation are redistributed to *all* individuals in our region and not just to the creative class?

Even though these are important questions to study from a research standpoint, except for two very recent studies by Batabyal *et al.* (2025) and Batabyal and Beladi (2025), they have received *no* theoretical attention in the economic geography and the regional science literatures. Therefore, we now proceed to briefly review the literature, paying particular attention to the two papers mentioned above, and then we state our specific objectives in this paper.

1.2. Literature review and goals

Roemer (2007) asks whether democratic political competition will eliminate existing inequalities in the human capital of children in different dynasties when there is no redistribution of income. Using an intertemporal model, he shows that although this kind of political competition may eliminate the existing inequalities, there is no guarantee that this will happen.

Will a lack of political competition negatively impact economic growth? Besley *et al.* (2010) use panel data from U.S. states to shed light on this question. Their empirical analysis shows that the lack of political competition in a state leads to anti-growth policies, meaning, higher taxes, lower capital spending, and a diminished likelihood of using right-to-work laws.

Arcalean (2018) develops and analyzes a political economy model in which there is dynamic fiscal competition with public spending and debt. Of particular interest here are economic outcomes with strategic as opposed to coordinated policies. The analysis conducted shows that strategic policies result in lower long run output and welfare relative to coordination. Even so, strategic policies are preferred by subsequent generations of voters if the number of financially integrated nations is low or if the political weight given to the young is high.

Batabyal *et al.* (2025) have recently analyzed a model of political competition in what they call a "techno-creative place." In their "techno-creative place," the three groups in society are the elites, the entrepreneurs, and laborers. *Unlike* the environment studied in our paper, in the Batabyal *et al.* (2025) analysis, the elites make political decisions and therefore they control tax policy.

These researchers concentrate on two broad institutional-economic scenarios. In the first (second) scenario, the probability of political power shifting permanently from the elites to the entrepreneurs is an increasing (decreasing) function of the net income of a representative techno-creative entrepreneur. In sum, the focus in this paper is on the effects of *stochastic* political competition on economic outcomes in the techno-creative place.

Batabyal and Beladi (2025) focus their analysis on an environment that has some similarities with the environment studied by Batabyal *et al.* (2025). However, there is one

minor and two major differences between these two papers. First, instead of conducting their analysis in a "techno-creative place," Batabyal and Beladi (2025) concentrate on a region that is creative in the sense of Richard Florida.

Second, and more substantively, the political competition in Batabyal *et al.* (2025) is probabilistic and hence the likelihood of power shifting from the elites to the entrepreneurs lies between zero and one. In contrast, Batabyal and Beladi (2025) study *deterministic* political competition meaning that there is a permanent shift in political power from the elites to the entrepreneurs. Finally, and unlike Batabyal *et al.* (2025), the basic focus of Batabyal and Beladi (2025) is on computing and comparing the discounted utility of the elites when the entrepreneurs hold political power with their utility when they (the elites) are in control of politics.

Our review of the contemporary literature on how political competition either in a techno-creative place or in a region that is creative in the sense of Richard Florida influences tax policy and economic outcomes yields the following central conclusion: this literature has examined the nexuses between political competition and tax policy on the one hand and the nature of tax policy in creative regions on the other. Even so, there are *no* studies in the literature that have explained why, when the creative class oversees tax policy, it may prefer to tax itself and not either the elites or the workers in the region under study.

Given this lacuna in the literature, we provide the *first* theoretical analysis of counterintuitive tax policy by the creative class in a region that is creative in the sense of Richard Florida (2002, 2005). Our dynamic model is adapted from Acemoglu (2007, 2009),[5] Batabyal *et al.* (2025), and Batabyal and Beladi (2025). Section 2 below delineates this theoretical model. There are three groups of individuals in the creative region we study---laborers or workers, creative class members or entrepreneurs, and the elites.[6] Section 3 presents a counterintuitive result in which the creative class prefers to tax itself, and not the elites or the workers, with the tax proceeds being redistributed also to itself via lump-sum transfers. Section 4 first explains why this counterintuitive result makes sense and then it discusses whether the above counterintuitive result will hold if the proceeds of taxation are redistributed to all individuals in our region and not just to the creative class. Section 5 concludes and then discusses three ways in which the research delineated in this

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[5]

Acemoglu (2007) shows how a formal theoretical framework can be used to explore how political power distribution, commitment problems, and the interests of elites shape institutional choices, leading to outcomes that hinder economic progress. This paper has contributed to the broader literature on political economy by explaining why inefficient institutions are not easily reformed, even when they impose significant economic costs. Second, Acemoglu (2009) is the most prominent textbook on modern growth theory. In this book, the author presents both theoretical models and empirical findings, making the book a foundational resource for advanced students and researchers. With a focus on formal mathematical modeling, the textbook covers essential topics such as endogenous growth, structural transformation, and the role of innovation, providing a deep understanding of the complex dynamics shaping economic development. Because the topics we cover in the present paper lie squarely within the ambit of the material covered in these two well-known references, we have chosen to utilize a model that adapts and builds on the seminal work of the Nobel laureate Daron Acemoglu (2007, 2009)

[6]

We understand that the creative class consists of a broad grouping of individuals in heterogeneous professions. In this paper, we are modeling a subset of the creative class that consists of those members who are entrepreneurs, producing a knowledge good.

paper might be extended. We would now like to emphasize two points before we proceed

to the theoretical framework.

1.3. Political competition: a typology and real-world examples

First, one can model political competition between the three groups of individuals

in our stylized region in two ways. In *stochastic* or *probabilistic* competition, the likelihood

of political power changing from, say, the elites to the entrepreneurial creative class or vice

versa, is a probability, i.e., some number between zero and one. In *deterministic*

competition, the likelihood of political power shifting from, once again, say, the elites to

the creative class is one or, put differently, this shift is permanent. The case of stochastic

political competition in a setting like ours has already been analyzed thoroughly by

Batabyal *et al.* (2025). This is why we do not analyze probabilistic political competition

in the present paper. That said, although Batabyal and Beladi (2025) have studied

deterministic political competition, the questions these researchers focus on are completely

different from the questions we address and this is what distinguishes our paper from

Batabyal and Beladi (2025) even though, in both papers, the political competition being

analyzed is deterministic in nature.

Second, our model of political competition between the elites and the

entrepreneurial creative class can be thought of as describing several real word scenarios.

Here are two historical and three post-World War II examples. If we look at 19th century

Britain, during the industrial revolution (Black 2023), there was a power struggle between the landed aristocracy (the elites) and the emerging industrial bourgeoisie (the entrepreneurial class). The landed elites, who controlled parliament and institutions, favored policies that protected their wealth (e.g., the Corn Laws, which imposed tariffs on grain imports to benefit landowners). Entrepreneurs and industrialists, such as those in Manchester, pushed for free trade, leading to the eventual repeal of the Corn Laws in 1846. This transition marked a shift from a land-based aristocracy to a more inclusive economic system favoring industrial capitalism.

Next, let us consider the United States in the late 19th and early 20th century. The "Gilded Age" and the early progressive era saw a struggle between entrepreneurial industrialists (e.g., Rockefeller, Carnegie, Vanderbilt) and *political elites* who sought to regulate or control their influence (Cashman 1993). Entrepreneurs accumulated vast wealth and power[7] and sometimes challenged government authority (e.g., antitrust battles against monopolies). The political response from the elites included antitrust laws (Sherman Antitrust Act of 1890) and regulations that limited the power of industrial monopolies while balancing political power.

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[7]

Some researchers claim that similar trends are, once again, observable in the United States in contemporary times. See Posey (2021) for a discussion of this and related issues.

As a third example, consider South Korea in the 1960s to the 1980s. Under President Park Chung-hee's regime, the government (the elites) tightly controlled industrial development through *chaebols* or large family-owned business conglomerates such as Samsung and Hyundai. Here, entrepreneurs had limited political influence compared to the military and bureaucratic elites (Kwon 2024). As South Korea democratized in the late 1980s, entrepreneurs and business leaders gained greater political influence, shifting power away from the *authoritarian elites*.

A fourth example is Russia since the 1990s. Following the collapse of the Soviet Union, a group of entrepreneurs (oligarchs) rapidly accumulated wealth and challenged the existing *political elites* (Rosefielde and Hedlund 2008). By the early 2000s, Vladimir Putin's government reasserted state control, limiting the political power of independent entrepreneurs (e.g., the imprisonment of Mikhail Khodorkovsky, former head of Yukos Oil). This ongoing competition has resulted in a state-capitalist model where political elites exert significant control over major entrepreneurs and industries.

Finally, let us focus on China in the aftermath of the 1978 economic reforms (Vogel 2013). After Premier Deng Xiaoping's economic reforms, private entrepreneurs emerged and challenged the dominance of state-owned enterprises (SOEs). Even so, *political elites* in the Communist Party have maintained control, sometimes cracking down on entrepreneurs seen as too independent (e.g., Jack Ma's Ant Group IPO being halted in

2020, see Zhong 2020). There is ongoing tension between market-oriented economic actors and the state, with policies shifting between encouraging private enterprise and reasserting state control. These examples highlight how political competition between elites and entrepreneurs can shape institutions, influence economic policies, and impact long-term development trajectories.[8] With these examples in place, we now proceed to our formal analysis.

2. The Theoretical Framework

Consider a stylized creative region in which time is discrete and which is populated by a continuum of $1 + \alpha^e + \alpha^n$ of risk-neutral individuals with discount factor $\theta \in (0,1)$. In the preceding notation, the 1 denotes the total number of laborers or workers whose measure is normalized to unity. The only role the workers in our model play is to supply their labor inelastically. The α^e (α^n) denotes the total number of elites (entrepreneurs) in our region. In other words, the three groups or *sets* of individuals in our creative region are made up of laborers or workers, creative class members or entrepreneurs, and the elites. Let us denote these three sets by $G^l, G^n,$ and G^e respectively.[9]

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[8]

Two other interesting examples are as follows. If we think of our creative region as a state such as California in the United States, then the political competition between the entrepreneurs and the elites we model can be thought of as delineating the interactions between tech entrepreneurs located in Silicon Valley and their attempts to influence policy set by the state government located in the capital city of Sacramento (Miller *et al.* 2024). Second, if we think of our creative region as a city such as San Francisco in California, then we can think of our model as outlining the interactions between tech entrepreneurs resident in this city and the San Francisco city government (Rodriguez 2023).

[9]

When our analysis begins, the elites are out of the picture as far as political power is concerned and the creative class controls both political power and tax policy.[10] At any time t, the *ith* entrepreneur in the set G^n of all entrepreneurs in our region produces a knowledge good such as a laptop computer, a camera, or a cellphone denoted by $Q_i(t)$, using a constant-returns-to-scale production function that is written in general form.[11] We emphasize that unlike the analyses in Batabyal *et al.* (2025) and in Batabyal and Beladi (2025), which are conducted with a Cobb-Douglas production function, we work with a general production function $H\{\cdot,\cdot\}$ where

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In what follows, we use the words "laborer" and "worker" and "creative class member" and "entrepreneur" interchangeably. Second, a superscript on a variable refers to a group (worker, entrepreneur, elite) and a subscript on a variable refers to an individual within a particular group. Third, an individual's group affiliation never changes over time in the analysis we undertake in this paper. Finally, observe that even though workers supply their labor inelastically, what makes the role of the creative class unique in our model is that they are the *victors* of the political competition between themselves and the elites. This victory gives them the authority to determine tax policy *uniquely* and they use this authority to their advantage but in a counterintuitive manner in the present paper. Also see section 3 below.

[10]

It is quite common to refer to the political class as an elite class. Here are three examples. In the United Kingdom, it is common to refer to the political class in London, particularly those in parliament and government, as the "Westminster Elite." In fact, during the Brexit debate, many "Leave" campaigners argued that the "Westminster elite" was ignoring the will of ordinary Britons. In France, the term "elite politique" is commonly used to describe the ruling class, often composed of graduates from the prestigious Ecole Nationale d'Administration (ENA). In China, high-ranking members of the Chinese Communist Party (CCP), especially those in the Politburo, are often referred to as the "elite." See Von Beyme (1996) for research on the topic of the political class as elites.

[11]

To see how our formal modeling of the entrepreneurial creative class is distinct, note the following two points. First, there is no ordering of any kind in the three groups of individuals we work with in our model. Second, the creative class in this paper is entrepreneurial, it controls the production technology with which it produces a knowledge good, and it also makes investment decisions. We claim that these two points embody the key characteristics of entrepreneurs who belong in Richard Florida's creative class. Therefore, our formal results in this paper would not change only if we replaced the creative class with another group that also has the very same characteristics that we claim the creative class has. If, in contrast, we were to replace the creative class with another group that did not have all the features that we have modeled in the present paper then our formal results would be different. Finally, the productive activities of the creative class may give rise to spillovers in other parts of our creative region. An analysis of this issue is beyond the scope of the present paper but it has been studied recently in the context of Chile by Goya (2024).

$$Q_i(t) = H\{K_i(t), L_i(t)\}. \tag{1}$$

In equation (1), $K_i(t)$ denotes physical capital which depreciates at rate $\delta > 0$, and $L_i(t)$ denotes labor. The per-capita or intensive production function stemming from equation (1) is

$$h(k_i) = H(K_i/L_i, 1) \tag{2}$$

where $k_i = K_i/L_i$ is the physical capital-labor ratio.

There is a non-negative tax rate that is applied to the output of the knowledge good produced by the creative class. Like the entrepreneurs, in principle, the elites may also decide to produce the knowledge good. If they do then there is a similar non-negative tax rate that is applied to the output of the knowledge good produced by them.

An implication of our constant-returns-to-scale assumption about the production function in equation (1) is that, in principle, a single creative class member could employ the entire labor force in our stylized region. Therefore, to ensure that entrepreneurial activity in our creative region is dispersed and not concentrated in a single location, we assume that there exists a ceiling on how much labor any one entrepreneur can hire.[12] This means that $L_i(t) \in (0, \hat{L}]$ for some ceiling $\hat{L} > 0$. Also, since the size of the total work force equals unity, for the labor market to clear at any time t, we must have

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[12]

How entrepreneurial creative class members determine where to locate their businesses is an important issue and it has recently been analyzed by Arauzo-Carod *et al.* (2024).

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$$\int_{G^n} L_i(t)di \leq 1. \tag{3}$$

Because the primary focus of our paper is on the counterintuitive case where the creative class, when it controls both politics and tax policy, might prefer to tax itself and not the elites or the workers, it will be convenient to assume that all the entrepreneurial creative class members hire the same number of workers. We emphasize that this assumption is without loss of generality because when there is full employment of workers---see equation (5) below---the allocation of these workers across the entrepreneurial creative class members is arbitrary since all these entrepreneurs make zero economic profits. In symbols, this gives us

$$L_i(t) = L^* = \min\left(\hat{L}, \frac{1}{\alpha^n}\right), \forall i \in G^n, \forall t. \tag{4}$$

Finally, following the discussion in Acemoglu (2007) and equation 22.6 in Acemoglu (2009, p. 786), we assume that there is full employment of workers in our creative region. Mathematically, this means that

$$\alpha^n \hat{L} > 1 \Rightarrow L^* = 1/\alpha^n. \tag{5}$$

Once the elites are out of the picture as far as political power is concerned, the creative class controls politics and the right to set tax policy. Therefore, in principle, there are four potential policy instruments available to the members of the creative class. Most importantly, there is a linear tax rate on the output of the knowledge good that we denote by $\tau_i(t) \in [0, 1]$. In addition, there are non-negative lump-sum transfers for the three

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groups that we denote by $T^l(t) \geq 0, T^n(t) \geq 0,$ and $T^e(t) \geq 0.$ Observe that because the lump-sum transfers are non-negative, they cannot be utilized to undertake non-distortionary, lump-sum taxation. The salient practical repercussion of this point is that the taxing group in our creative region or the creative class can *only* use the linear tax rate to raise revenue.

Before continuing further, it is worth highlighting the two kinds of inefficiencies that are, in principle, *possible* in our political economy setting with political competition between the elites and the creative class members. Following Acemoglu (2007, pp. 342-343),[13] the first inefficiency stems from *revenue extraction*. The idea here is that the group in power will set high and distortionary taxes on the other groups to extract resources from them. The second inefficiency is related to *factor price manipulation*. The idea here is that the group in power will have an incentive to tax the other group to reduce the prices of the factors they use to produce the knowledge good. This incentive arises because when the elites and the entrepreneurs are both interested in producing knowledge goods, they will necessarily compete among themselves for the available physical capital and workers. So, by taxing the elites, the creative class makes them worse off and maintains its hold on political power.

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The reader interested in a textbook discussion of these sources of inefficiency and related matters should consult Acemoglu (2009, chapter 22).

We now specify the timing of events at any date t. When our analysis begins, there is a predetermined tax $\tau(t)$ on the output of the knowledge good. The physical capital stocks of the entrepreneurs are given by $\{K_i(t)\}_{i \in G^n}$. Second, these entrepreneurs decide how much labor to hire $\{L_i(t)\}_{i \in G^n}$. Third, the knowledge good is then produced and a fraction $\tau(t)$ of the output is collected as tax revenue. Fourth, the politically powerful group then determines the transfers $T^l \geq 0, T^n \geq 0,$ and $T^e \geq 0$. These transfers satisfy or, put differently, the budget constraint confronting the group holding political power and tax setting authority is

$$T^l(t) + \alpha^n T^n(t) + \alpha^e T^e(t) \leq \tau(t) \int_{G^n} H\{K_i(t), L_i(t)\}di, \qquad (6)$$

where the left-hand-side (LHS) indicates the tax setting group's expenditure, and the right-hand-side (RHS) denotes the tax revenues which are the product of the predetermined tax rate and the output of the knowledge good. Fifth, the politically powerful group announces the tax rate that will prevail in date $t + 1$ or $\tau(t + 1)$. Sixth, after specifying this tax rate, the entrepreneurs choose their capital stocks $\{K_i(t + 1)\}_{i \in G^n}$.

Let $\Pi^t = \{\tau(v), T^l(v), T^n(v), T^e(v)\}_{v=t}^{\infty}$ denote a feasible, infinite sequence of policies, i.e., a combination of the tax rate and the three non-negative transfers, beginning at time t. Then, given this policy vector Π^t, following the logic leading up to and including Proposition 22.1 in Acemoglu (2009, pp. 787-789), it can be shown that a unique competitive equilibrium exists in our creative region with certain well known properties.

Specifically, in this equilibrium, the utility of any creative class member in the set G^n is maximized, the labor market clears, and the sequence of physical capital-labor ratios and wages paid to the workers are pinned down.

With this background in place, we are now in a position to present a counterintuitive result in which the creative class prefers to tax itself, and not the elites or the workers, with the tax proceeds being redistributed also to itself via lump-sum transfers.

3. Counterintuitive Tax Policy

The creative class controls politics and hence it can set tax policy as it pleases. In this setting, we want to show that instead of taxing the elites or the workers, members of the creative class may prefer to tax themselves and have the proceeds of this taxation also be transferred to themselves as lump-sum transfers.

We begin by pointing out that even when the creative class has the authority to set tax policy, given the policy vector $\Pi^t = \{\tau(v), T^l(v), T^n(v), T^e(v)\}_{v=t}^{\infty}$, consistent with our previous discussion in section 2, the unique competitive equilibrium in our creative region is still given by proposition 22.1 in Acemoglu (2009, p. 789). Further, adapting equation (22.11) in Acemoglu (2009, p. 789) to our problem, the equilibrium physical capital-labor ratio as a function of the tax $\tau(t)$ or $\bar{k}\{\tau(t)\}$ can be written as

$$\bar{k}\{\tau(t)\} = (h')^{-1}\left\{\frac{(1/\theta)+\delta-1}{1-\tau(t)}\right\}. \tag{7}$$

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Similarly, adapting equation (22.13) in Acemoglu (2009, p. 789) to the problem of interest

to us, the equilibrium wage as a function of the tax or $\overline{w}\{\tau(t)\}$ can be expressed as

$$\overline{w}\{\tau(t)\} = \{1 - \tau(t)\}[h\{\bar{k}(\tau)\} - \bar{k}\{\tau(t)\}h'\{\bar{k}(\tau)\}].\qquad(8)$$

Recall from equation (5) that the equilibrium number of workers hired by an

entrepreneurial creative class member is $L^* = 1/\alpha^n$. Using this last result and the logic of

equation (8) in Batabyal and Beladi (2025), we can write an expression for the

representative creative class member's per period consumption or $C^n(t)$. That expression

is

$$C^n(t) = L^*\{1 - \tau(t)\}h[\bar{k}\{\tau(t)\}] - L^*\bar{k}\{\tau(t+1)\} + (1 - \delta)L^*\bar{k}\{\tau(t)\}$$

$$-\{1 - \tau(t)\}\left[h\left\{\bar{k}\{\tau(t)\}\right\} - \bar{k}\{\tau(t)\}h'\{\bar{k}(\tau)\}\right]L^* + T^n(t).\qquad(9)$$

Note that the last term on the RHS of equation (9) denotes the lump-sum transfer payable

to any member of the creative class.

After several algebraic steps, using the result from equation (7) that

$\{1 - \tau(t)\}h'\{\bar{k}(\tau)\} = (1/\theta) - (1 - \delta)$, we can rewrite equation (9). This gives us

$$C^n(t) = [-\bar{k}\{\tau(t+1)\} + \tfrac{1}{\theta}\bar{k}\{\tau(t)\}]\tfrac{1}{\alpha^n} + T^n(t).\qquad(10)$$

To solve for the optimal lump-sum transfers to the creative class or $T^n(t)$, we work with

the budget constraint given in equation (6). This gives us

$$T^l(t) + \alpha^n T^n(t) + \alpha^e T^e(t) = \tau(t)\int_{G^n}H\{K_i(t), L_i(t)\}di = \tau(t)h[\bar{k}\{\tau(t)\}].\qquad(11)$$

Inspecting equation (11), it should be clear to the reader that the creative class will want

no lump-sum transfers to go either to the elites or to the workers. This means that we can

set $T^l(t) = T^e(t) = 0$. Using this last finding in equation (11) gives us

$$T^n(t) = \frac{1}{\alpha^n} \tau(t) h[\bar{k}\{\tau(t)\}].$$
(12)

Substituting this value of $T^n(t)$ from equation (12) into equation (10) tells us that the

consumption of the representative creative class member is

$$C^n(t) = \frac{1}{\alpha^n}[-\bar{k}\{\tau(t+1)\} + \frac{1}{\theta}\bar{k}\{\tau(t)\} + \tau(t)h[\bar{k}\{\tau(t)\}].$$
(13)

Using equation (13) and the method of dynamic programming,[14] the optimal tax

policy choice problem of the representative creative class member can be written

recursively in a manner similar to equation 22.15 in Acemoglu (2009, p. 790). Once we do

this, we get

$$V^n[\tau, \{\bar{k}_i(\tau)\}_{i\in G^n}] =$$

$$max_{\tau'\in[0,1]}[\{\frac{1}{\theta}\bar{k}(\tau') + \tau h\{\bar{k}(\tau)\} - \bar{k}(\tau')\}\frac{1}{\alpha^n} + \theta V^n[\tau', \{\bar{k}_i(\tau')\}_{i\in G^n}]], \quad (14)$$

where the physical capital stocks $\{\bar{k}_i(\tau)\}_{i\in G^n}$ are given by equation (7). In equation (14),

$V^n[\tau, \{\bar{k}_i(\tau)\}_{i\in G^n}]$ is the value of a creative class member given the tax rate announced

in the last time-period for today, $\tau(t)$, and the distribution of the physical capital stocks

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[14]

See Stokey *et al.* (1989) for a thorough textbook treatment of dynamic programming.

held by the creative class or $\{\bar{k}_i(\tau)\}_{i \in G^n}$. For this problem, the envelope condition[15] gives us

$$V_\tau^n\big[\tau, \{\bar{k}_i(\tau)\}_{i \in G^n}\big] = \Big[\tfrac{1}{\theta}\tfrac{\partial \bar{k}(\tau)}{\partial \tau} + h\{\bar{k}(\tau)\} + \tau h'\{\bar{k}(\tau)\}\tfrac{\partial \bar{k}(\tau)}{\partial \tau}\Big]\tfrac{1}{\alpha^n}. \tag{15}$$

In addition, the first-order necessary condition for a maximum to the problem in equation (14) is

$$\tfrac{\partial \bar{k}(\tau')}{\partial \tau'}\tfrac{1}{\alpha^n} = \theta V_\tau^n\big[\tau', \{k_i(\tau')\}_{i \in G^n}\big]. \tag{16}$$

Equations (15) and (16) together tell us that

$$V_\tau^n\big[\tau, \{\bar{k}_i(\tau)\}_{i \in G^n}\big] - \tfrac{1}{\theta}\tfrac{\partial \bar{k}(\tau)}{\partial \tau}\tfrac{1}{\alpha^n} = \Big[h\{\bar{k}(\tau)\} + \tau h'\{\bar{k}(\tau)\}\tfrac{\partial \bar{k}(\tau)}{\partial \tau}\Big]\tfrac{1}{\alpha^n} = 0. \tag{17}$$

Inspecting equation (17), we see that the only way the RHS equals zero is if the term in the square brackets $[\bullet]$ is equal to zero. This tells us that the optimal tax chosen by the creative class is implicitly given by the condition

$$h\{\bar{k}(\tau)\} + \tau h'\{\bar{k}(\tau)\}\tfrac{\partial \bar{k}(\tau)}{\partial \tau} = 0. \tag{18}$$

Differentiating the LHS and the RHS of equation (7), we get

$$\tfrac{\partial \bar{k}(\tau)}{\partial \tau} = \tfrac{(1/\theta)-(1-\delta)}{(1-\tau)^2}\tfrac{1}{h''\{\bar{k}(\tau)\}}. \tag{19}$$

Using equation (19) to simplify the last partial derivative in equation (18), we get

$$h\{\bar{k}(\tau) + \tau h'\{\bar{k}(\tau)\}\tfrac{(1/\theta)-(1-\delta)}{(1-\tau)^2}\tfrac{1}{h''\{\bar{k}(\tau)\}} = 0. \tag{20}$$

Let us now use equation (7) to simplify equation (20) further. This gives us

$$h\{\bar{k}(\tau)\} + \frac{\tau}{1-\tau}\left\{\frac{(1/\theta)-(1-\delta)}{(1-\tau)^2}\right\}^2 \frac{1}{h''\{\bar{k}(\tau)\}} = 0. \tag{21}$$

Some thought will convince the reader that equations (7) and (21) together give us two equations in the two unknowns that are the optimal physical capital-labor ratio and the tax rate. Even though this system of two equations in two unknowns is, in principle, solvable, for our present purpose, we are only interested in determining whether the optimal tax rate or τ chosen by the creative class is *positive*. We now show that $\tau > 0$ in four steps.

First, let us evaluate equation (7) when the tax $\tau = 0$. This gives us

$$\bar{k}\{0\} = (h')^{-1}\{(1/\theta) + \delta - 1\} > 0. \tag{22}$$

This tells us that equation (21) is *not* satisfied when $\tau = 0$ because we already know that $h\{\bar{k}(0)\} > 0$. Second, observe that the LHS of equation (21) or the expression $h\{\bar{k}(\tau)\} + \{\tau/(1-\tau)\}[\{(1/\theta) - (1-\delta)\}/(1-\tau)^2]^2 [1/h''\{\bar{k}(\tau)\}]$ describes the marginal return to the creative class from setting a higher tax rate. Third, since $h\{\bar{k}(0)\} > 0$, the marginal return to the creative class from increasing the tax at $\tau = 0$ is positive. Finally, combining the previous three steps, it follows that the creative class will indeed want to tax itself when it controls both politics and the attendant ability to set tax policy. We now explain why this counterintuitive result makes sense in the next section.

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4. The Rationale for Counterintuitive Tax Policy

To comprehend why counterintuitive tax policy makes sense, consider the following line of reasoning. Because all markets in our creative region are competitive, the entrepreneurial creative class members make zero economic profit beyond the normal or competitive return on the physical capital with which they are endowed. By levying a tax which the entrepreneurial creative class producers of the knowledge good will take as given after the tax is set, competition will guarantee that the creative class producers of the knowledge good earn zero economic profit *after* the tax is paid for. This last result means that the equilibrium wage---see equation (8)---will be lower. Therefore, the received tax dollars can be distributed to all the *creative* class members via lump-sum transfers. This means that the possibility of the creative class taxing itself provides this class with an *inefficient mechanism* with which to transfer resources from the workers to itself.

Now suppose that the tax proceeds are used by the creative class to compensate *all* three groups---elites, creative class, and workers---in our creative region via lump-sum transfers. In this case, the incentive to conduct distortionary tax policy would be diminished. But, even in this case, the basic result from the preceding paragraph would still go through. In other words, it would still make sense for the creative class to tax itself

to lower the wage paid to workers and thereby transfer resources from the workers to itself.[16]

Speaking more generally, our analysis demonstrates that inefficient mechanisms can persist in a creative region despite their negative impact. One reason why this can happen is that such mechanisms serve the interests of a powerful group (the entrepreneurial creative class) that benefits from their existence. Specifically, this group can maintain mechanisms that extract resources from other groups in society even though it is not clear that such mechanisms promote either economic growth or development.

It is also possible that the group with tax setting authority (the creative class) can use inefficient mechanisms to create inefficient institutions that can create barriers to

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[16]

It is true that tax revenues in creative regions are sometimes used to increase the provision of public goods and services such as infrastructure, public safety, and schools. Even so, these same revenues are sometimes rebated back to taxpayers. More generally, different regions, both sub-national and national, have adopted different approaches to redistributing tax revenues directly to citizens instead of using them to fund government expenditures. Here are four examples to corroborate our claim. First, consider Singapore's GST Vouchers and Growth Dividends. Singapore periodically redistributes a part of its budget surplus as direct cash payments, rebates, and utility subsidies, often but not always, benefiting lower-income citizens. This system helps offset the impact of the Goods and Services Tax (GST) and ensures economic gains are shared with the population {https://www.mof.gov.sg/news-publications/press-releases/2-1-Million-Singaporeans-To-Receive-Their-GST-Voucher}. Second, consider the Macau Wealth Partaking Scheme. Macau, a major gambling hub, uses its casino tax revenues to distribute cash payments to permanent residents. In other words, instead of simply funding public projects, the government ensures that a portion of its massive gambling tax windfall is shared directly with residents {https://www.planocp.gov.mo/en/}. Third, take a look at Canada's Carbon Tax Rebates. The federal government collects carbon taxes and returns the majority of revenues directly to taxpayers in the form of rebates. This makes the tax revenue-neutral, ensuring that most households receive as much or more than they pay, while still incentivizing lower carbon emissions {https://www.canada.ca/en/revenue-agency/services/child-family-benefits/canada-carbon-rebate.html}. Finally, consider the Swiss Canton of Zug's Tax Rebates. Some Swiss cantons, such as Zug, have used budget surpluses to refund a part of their collected taxes to residents. As such, a mix of low taxes and periodic rebates makes Zug an attractive location for both businesses and individuals {https://www.myoffices.ch/en/post/steuern-zug}. All four websites were accessed on 28 March 2025.

entry, restrict competition, or even enforce monopolies, which benefit the creative class at the expense of broader economic efficiency in society. This completes our discussion of political competition and economic outcomes in a region in which the creative class sets tax policy.[17]

5. Conclusions

In this paper, we theoretically studied how political competition between the elites and the creative class shaped economic outcomes in a stylized region. There were three groups of individuals in our region: laborers or workers, creative class members or entrepreneurs, and the elites. Unlike previous studies, tax policy in our region was set *not* by the elites but instead by the creative class. In this setting, we first presented a counterintuitive result in which the creative class preferred to tax itself, and not the elites

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[17] Note that in the model of this paper, members of the creative class acquire the power to set taxes because they are victorious in their political competition with the elites. This victory is what gives them the right to set taxes. That said, even though it may seem unusual to have the creative class tax itself, in the real world, one can point to several instances in which the creative class has contended that they ought to be subject to higher tax rates. For instance, the "Patriot Millionaires" in the UK and USA, a group of wealthy individuals, including creative professionals, business leaders, and tech entrepreneurs, advocated for higher taxes on the rich. In this regard, in 2021, over 100 millionaires (including many creative class members) signed a letter calling for permanent wealth taxes on the richest people to support public services {https://www.oxfam.org/en/press-releases/over-100-millionaires-call-wealth-taxes-richest-raise-revenue-could-lift-billions#:~:text=It's%20time%20we%20tax%20the,extremely%20unequal%20societies%20looks%20like%E2%80%9D}. Second, some technology entrepreneurs in Silicon Valley and financiers, who made fortunes through digital and financial innovations, have publicly supported taxing themselves more {https://www.cnbc.com/2019/02/25/warren-buffett-and-bill-gates-the-rich-should-pay-higher-taxes.html}. Finally, in 2022, Yvon Chouinard, the billionaire founder of Patagonia, the outdoor clothing company, transferred the entire company into a trust designed to combat climate change, essentially "taxing himself" rather than selling or passing on wealth to heirs. This action resulted in the redirection of Patagonia's profits to environmental causes rather than to the enhancement of personal wealth {https://www.nytimes.com/2022/09/14/climate/patagonia-climate-philanthropy-chouinard.html} All three websites were accessed on 28 March 2025.

or the workers, with the tax proceeds being redistributed also to itself via lump-sum transfers. Second, we explained why this counterintuitive result made sense. Finally, we discussed whether the counterintuitive result would hold if the proceeds of taxation were redistributed using lump-sum transfers to *all* three groups in our region and not just to the creative class.

The analysis in this paper can be extended in several ways to shed practical light on alternate aspects of the tax related interactions between tech entrepreneurs and governments (the elites) in different real-world settings. Here are three examples. First, it would be interesting to study the potential existence of commitment problems where the group with tax setting power does not credibly commit to institutional reforms that might undermine its own power and privilege but would benefit the entire creative region. Second, one could ascertain whether the counterintuitive tax policy result obtained in this paper holds when the entrepreneurial creative class is able to set not just tax policy but also has access to other policy instruments with which to potentially immiserize the two other groups in the region. Finally, it would be instructive to examine the interaction between the elites and the entrepreneurs in our creative region when the production technology is not described by equation (1) but instead is delineated by a form of the sort studied by Romer (1986). Studies that analyze these aspects of the underlying problem in creative regions will provide additional insights into the nature and the effects of counterintuitive

tax policy arising from deterministic political competition between the elites and the entrepreneurs in a creative region.

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