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by

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Abstract

We analyze a stylized creative region populated by three groups of individuals: the elites who hold political and taxing power, the entrepreneurial creative class that produces a knowledge good, and workers. Political competition between the elites and the creative class results in the elites levying distortionary taxes on the creative class. We provide a rationale for this kind of taxation and then present two results. First, we demonstrate that this kind of distortionary taxation *reduces* the equilibrium growth rate of the economy of our creative region. Second, we explain why this negative result arises.

Keywords: Creative Class, Distortionary Tax, Elite, Political Competition

JEL Codes: R11; H21

1. Introduction

Political-economy issues are critical in regions that are creative in the sense of Richard Florida (2002, 2005) because such regions depend on a delicate balance of social, economic, and institutional factors to thrive. The so-called *creative class* drives these regions' prosperity, requiring environments that are rich in talent, technology, and tolerance—the "3Ts" that Florida (2002) emphasizes. To sustain and attract this demographic, Florida (2003), Batabyal and Nijkamp (2023), and many others have pointed out that policymakers must craft strategies that support education, innovation, and cultural vibrancy while also ensuring that infrastructure and public services cater to their needs. Neglecting these aspects can disrupt a region's ability to attract creative workers and businesses, which are vital for its competitive edge in a globalized economy.

Economic inequality presents a significant political-economy challenge in creative regions (McCann 2007; Florida 2017). While the creative class often enjoys substantial economic rewards, the service and support sectors that sustain them frequently experience lower wages and limited mobility. This disparity can lead to social and political tensions, undermining regional cohesion (Peck 2005). Addressing these inequities requires policies that ensure affordable housing, equitable wages, and access to quality education and healthcare for all workers, not just the creative elite. These measures help prevent the exclusion and displacement of marginalized groups, which could otherwise erode the cultural diversity that creative regions rely upon (Atkinson and Easthope 2009).

Finally, rapid economic growth and urbanization often strain infrastructure, displace communities, and lead to environmental degradation (Kahuthu 2006). Creative regions must therefore adopt policies that promote sustainable development, such as green building initiatives, renewable energy programs, and efficient public transportation systems. Simultaneously, fostering inclusivity ensures that diverse voices are heard and that economic gains are shared equitably. By addressing these political-economy issues, creative regions can sustain their growth while maintaining the vibrant, inclusive, and forward-thinking character that defines them (Gerlitz and Prause 2021).

As the above discussion shows, political-economy issues are central to both the functioning and the vibrancy of creative regions. Even so, to the best of our knowledge, the *theoretical* study of how political-economy questions influence the working of creative regions is still in its infancy. In fact, we are aware of only two recent papers that have rigorously analyzed how political competition between different groups influences economic outcomes and welfare in a creative region.

Batabyal *et al.* (2025) have examined 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. The elites make political decisions and they control tax policy. These researchers concentrate on two 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 of this paper is on how stochastic political competition influences tax policy and this, in turn, affects 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, 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 comparing the discounted utility of the elites when the entrepreneurs control tax policy with their utility when they (the elites) are in control of tax policy.

Even though both these papers make valuable contributions to our understanding of how tax policy works when there is political competition in a creative region, neither paper addresses what we believe are two key questions in such political-economy models: First, when there is political competition between the elites and the entrepreneurs in a creative region, what impact, positive or negative, does distortionary taxation by the elites on the entrepreneurial creative class have on the equilibrium *growth rate* of the economy of a creative region? Second, what causes the positive or negative impact to come about? Given this lacuna in the literature, our objective in the present paper is to rigorously analyze these two questions.

Our dynamic model is adapted from Acemoglu (2007, 2009), 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. Section 3 demonstrates that the use of distortionary taxation by the elites on the entrepreneurs reduces the Markov perfect equilibrium[4] growth rate of the economy of our creative region. Section 4 provides a rationale for this negative result. Section 5 concludes and then discusses two ways in which the research delineated in this paper might be extended.

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For textbook accounts of the Markov perfect equilibrium concept, see Fudenberg and Tirole (1991) or Mailath and Samuelson (2006).

2. The Theoretical Framework

Consider a stylized creative region in which time is discrete and which is populated by a continuum of $\alpha^l + \alpha^e + \alpha^n$ of individuals with discount factor $\theta \in (0,1)$. To keep the subsequent analysis tractable, in what follows, we suppose that $\alpha^l = \alpha^n = 1$. This means that the measure of the total number of laborers or workers (α^l) and entrepreneurs or creative class members (α^n) is normalized to unity. The only role the workers in our model play is to supply their labor inelastically. The total number of elites in our creative region is given by α^e. Put differently, 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.[5]

In the Batabyal *et al.* (2025) and Batabyal and Beladi (2025) analyses, the elites, the creative class, and the workers are all risk neutral. Here, we maintain the risk neutrality of the workers and the elites but we suppose that the creative class members are risk averse. We make this assumption because otherwise there will typically be no interior solution to the decision problem faced by the creative class. We capture this risk aversion

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5 In the remainder of this paper, 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. Finally, an individual's group affiliation never changes over time in the analysis we undertake in this paper.

idea in a simple way by supposing that at any time t, the representative creative class member has a concave utility function defined over consumption and is given by[6]

$$u\{C(t)\} = \log\{C(t)\}. \tag{1}$$

When our analysis begins, the elites hold political power and hence they also control tax policy. At 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. We stress 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 $H\{\bullet,\bullet\}$ where

$$Q_i(t) = H\{K_i(t), D(t)L_i(t)\}. \tag{2}$$

In equation (2), $K_i(t)$ denotes physical capital which depreciates at rate $\delta > 0$, and $L_i(t)$ denotes labor. Observe that the labor augmenting productivity term or $D(t)$ has no subscript i. This is because we assume that this term is common to all the entrepreneurial creative class members in our model. Alternate interpretations of the $D(t)$ term are possible. For instance, in their Cobb-Douglas formulation of equation (2), Batabyal *et al.* (2025) think of the $D(t)$ term as the outcome of the use of a digital technology. We assume

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A logarithmic utility function implies extreme risk aversion. An alternative to this logarithmic utility function is a power function.

that the production function $H\{\bullet,\bullet\}$ displays constant returns to scale in physical capital and increasing returns to scale in physical capital and labor. Following Acemoglu (2009, p. 399), let us now apply a normalization so that we can express this productivity term as

$$D(t) = G\int_0^1 K_i(t)di = GK(t), \tag{3}$$

where $G > 0$.

There is a non-negative tax rate that is applied by the elites to the output of the knowledge good produced by the creative class. There are two possible rationales for the use of a distortionary tax by the elites. Following Acemoglu (2007, pp. 342-343), first, there is the *revenue extraction* justification which means that the elites would like to extract resources for themselves from the creative class members. That said, like the entrepreneurs, in principle, the elites may also decide to produce the knowledge good. If they do then this possibility provides the second or *factor price manipulation* justification which means that by taxing the entrepreneurs, the elites will reduce the demand for inputs by the creative class and therefore indirectly enhance the profits of the elites.

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. 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, a feasibility condition must be satisfied and that condition is

$$\int_{G^n} L_i(t)di \leq 1. \tag{4}$$

Because the primary focus of our paper is on studying the impact of the distortionary tax on economic growth in our creative region, it will be convenient to assume that there is full employment of the available labor force or $L_i(t) = 1, \forall t$, and that the wage rate at any time t is given by $w(t)$. If we did not have full employment in our creative region then the wage rate would equal zero and the analysis we undertake in the present paper would need to be altered.

There are four potential policy instruments available to the elites in our creative region. To reiterate, there is the 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 that the elites can make to the three 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 elites in our creative region can *only* use the linear tax rate to raise revenue.

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 elites then determine 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 elites is

$$T^l(t) + \alpha^n T^n(t) + \alpha^e T^e(t) \leq \tau(t) \int_{G^n} H\{K_i(t), D(t)L_i(t)\} di, \tag{5}$$

where $\alpha^n = 1$, the left-hand-side (LHS) indicates the expenditure incurred by the elites, 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 elites announce 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 wages paid to the workers are pinned down.

With this background in place, we are now in a position to demonstrate that the use of distortionary taxation by the elites on the entrepreneurs reduces the Markov perfect equilibrium growth rate of the economy of our creative region.

3. Distortionary Taxes and Economic Growth

We begin our analysis by focusing on the maximization problem faced by the creative class in our creative region. Because the creative class members are risk averse, production related choices made by them at any time t will depend on the entire trajectory of future taxes $\{\tau(v)\}_{v=t}^{\infty}$. This means that we need to introduce this trajectory explicitly as a state variable in the maximization problem faced by the creative class. To this end, let the entrepreneurs face the (exogenously given) sequence of taxes $\{\tau(t)\}_{t=0}^{\infty}$. The maximization problem faced by the creative class is stationary which means that once the present level of physical capital and the future trajectory of taxes $\{\tau(v)\}_{v=t}^{\infty}$ are accounted for, the problem itself is not a function of calendar time.

We can now use standard dynamic programming methods[7] to recursively state the maximization problem faced by the creative class members. Suppressing the time variable when this will not cause confusion and substituting for consumption $C(t)$ into the utility function given by equation (1), we get

$$V[K,\{\tau(v)\}_{v=m}^{\infty}] = max_{(\tilde{K},L)}[\log\{(1-\tau(m))H\{K,DL\}-\tilde{K}-wL\} \\ +\theta V[\tilde{K},\{\tau(v)\}_{v=m+1}^{\infty}]], \quad (6)$$

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See Stokey *et al.* (1989) or Acemoglu (2009, pp. 182-226) for textbook treatments of dynamic programming and recursive methods.

where $V[\bullet]$ is the value function, the log $\{\bullet\}$ expression on the RHS of equation (6) denotes the logarithm of consumption, we have assumed that physical capital depreciates completely or $\delta = 1$, and $\tilde{K}$ satisfies the inequality given by

$$0 \leq \tilde{K} \leq \big(1 - \tau(m)\big) H\{K, DL\} - \tilde{K} - wL. \tag{7}$$

In the remainder of this section, to simplify some of the mathematical analysis and following Acemoglu (2007, p. 346), we shall continue to assume, as we have just noted, that physical capital depreciates completely and hence $\delta = 1$.

We now want to use the point that $L_i(t) = \alpha^n = 1$. Second, let us denote consumption by the entrepreneurs with the policy function $\zeta^C(\bullet)$. Mathematically, this means that we can write $C(m) = \zeta^C[K(m), \{\tau(v)\}_{v=m}^{\infty}]$. Using the above point and the policy function, we can write the first-order necessary condition and the so-called envelope condition[8] to the creative class member's maximization problem. We get

$$\theta V_{\tilde{K}}\left[\tilde{K}, \{\tau(v)\}_{v=m+1}^{\infty}\right] = \tfrac{1}{\zeta^C[K, \{\tau(v)\}_{v=m}^{\infty}]} \tag{8}$$

and

$$V_K[K, \{\tau(v)\}_{v=m}^{\infty}] = \tfrac{1}{\zeta^C[K, \{\tau(v)\}_{v=m}^{\infty}]}\left\{\big(1 - \tau(m)\big) H_K\{K, D\}\right\}. \tag{9}$$

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The envelope condition method refers to a technique used in optimization problems, particularly within dynamic programming, where the solution is derived by utilizing the so-called "envelope theorem." Essentially, this involves finding the "upper envelope" of a family of functions to identify the optimal choice, often represented graphically as a curve that "envelopes" other related curves. See Maliar and Maliar (2013) and White (2022) for additional details on the envelope condition method.

Combining equations (8) and (9), the optimal consumption and physical capital choices of the entrepreneurs can be expressed in terms of an Euler equation.[9] That equation is

$$\frac{\zeta^{C}[\tilde{K},\{\tau(v)\}_{v=m+1}^{\infty}]}{\zeta^{C}[K,\{\tau(v)\}_{v=m}^{\infty}]} = \theta\{\big(1-\tau(m+1)\big)H_{K}\{\tilde{K},D\}. \tag{10}$$

From equation (10), which describes the optimal physical capital choices of all entrepreneurs, we infer that these entrepreneurs will choose an identical amount of physical capital given by $K_i(t) = K(t)$ and hence we can dispense with the subscript i. Now, using the result of equation (3) in equation (10) and displaying the time dependence of the relevant variables explicitly, we get

$$\frac{C(t+1)}{C(t)} = \theta[\big(1-\tau(t+1)\big)H_{K}\{K(t+1), GK(t+1)\}]. \tag{11}$$

Because of the scale properties of the production function $H\{\bullet\}$ discussed in section 2, we can rewrite the $H_K\{K(t+1), GK(t+1)\}$ in equation (11) differently. This gives us

$$\frac{C(t+1)}{C(t)} = \theta[\big(1-\tau(t+1)\big)H_{K}\{1, G\}]. \tag{12}$$

Note that the term $H_K\{1, G\}$ is constant and we shall utilize this property later in the present section. That said, what we have seen thus far is that the solution to the maximization problem faced by the creative class is described by equations (8)-(12). In particular, we see that for a given trajectory of taxes $\{\tau(t)\}_{t=0}^{\infty}$, the preceding set of

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See Acemoglu (2009, pp. 202-205) or a textbook discussion of Euler equations.

equations describe the complete trajectory of optimal physical capital and consumption or $[\{K_i(t), C_i(t)\}_{t=0}^{\infty}]_{i=0}^{1}$.

Because our primary objective in this section is to ascertain the impact of levying taxes on the creative class on the growth of the economy of our creative region, we now need to establish the trajectory of optimal taxes. To this end, observe that the budget constraint faced by the elites who control political and taxing power is given by equation (5). As discussed previously, the only source of income for the elites is from the tax revenue they collect. Therefore, it doesn't make any sense for them to grant positive transfers to either the workers or to the creative class. In other words, it is optimal to set $T^w = T^n = 0$. This means that what the elites consume essentially equals the transfer that they give themselves.

Using equation (2) for the production function $H\{\bullet,\bullet\}$, we can write this consumption as

$$C^e(t) = T^e(t) = \frac{\tau(t)}{\alpha^e} \int_0^1 H\{K_i(t), D(t)L_i\,(t)\}di. \tag{13}$$

Let us now use the scale properties of the production function $H\{\bullet,\bullet\}$ described in section 2. The specific scale properties we have in mind are the points that this function displays constant returns to scale in physical capital and increasing returns to scale in physical capital and labor. Doing this, we can write

$$H\{K_i(t), D(t)L_i(t)\} = H\{K(t), GK(t)\} = K(t)H\{1, G\}. \tag{14}$$

Equation (14) can be used to simplify the consumption expression for the elites or $C^e(t)$ given in equation (13). This simplification gives us

$$C^e(t) = T^e(t) = \frac{\tau(t)}{\alpha^e} K(t) H\{1, G\}. \qquad (15)$$

Having studied the decision problem faced by the creative class, let us now look at the decision problem faced by the elites in our creative region. Once again, using dynamic programming methods, the maximization problem faced by the elites is

$$max_{\{\tilde{\tau}(t)\}_{t=0}^{\infty}} V^e[\{\tilde{\tau}(t)\}_{t=0}^{\infty}] = max_{\{\tilde{\tau}(t)\}_{t=0}^{\infty}} \sum_{t=0}^{\infty} \theta^t [\frac{\tilde{\tau}(t)}{\alpha^e} K(t, \{\tilde{\tau}(t)\}_{t=0}^{\infty}) H\{1, G\}, \quad (16)$$

where $V^e[\bullet]$ is the value function and $K(t, \{\tilde{\tau}(t)\}_{t=0}^{\infty})$ represents the optimal choice of physical capital by the creative class given the tax trajectory $\{\tilde{\tau}(t)\}_{t=0}^{\infty}$.

It is important to comprehend that given our primary objective of determining the impact that the distortionary taxes set by the elites on the creative class has on economic growth in our creative region, we do *not* have to solve the maximization problem described in equation (16). For our purpose, it is sufficient to recognize two points. First, because of the assumptions we have made in section 2 about the structure of our model---see Acemoglu (2009, pp. 785-792) for details---the problem in equation (16) does possess a solution. Let us denote this solution by $\{\hat{\tau}(t)\}_{t=0}^{\infty}$. Second, it can be shown that there is a Markov perfect equilibrium in which the taxes are constant or *time invariant* and hence we can write $\tau^{TI}(t) = \tau^{TI} > 0, \forall t$.

To demonstrate the negative impact of the elite's distortionary taxes $\tau^{TI} > 0$ on economic growth in our creative region, we shall proceed in two steps. First, we shall show that there is a so-called balanced growth path (BGP)[10] on which the growth rate of the economy of our creative region is equal to the growth rate of physical capital. Second, we shall point out that the growth rate of physical capital will be *lowered* if distortionary taxes are levied on the creative class.

The total output of the knowledge good in our creative region is

$$Q(t) = \int_0^1 Q_i(t)di = \int_0^1 H\{K_i(t), D(t)L_i(t)\} = K(t)H\{1, G\}, \qquad (17)$$

where the last step on the RHS of equation (17) uses equation (14). Now, inspecting equation (15), we see that the consumption of the elites is *proportional* to the physical capital stock as long as the tax levied by the elites on the creative class is constant. In symbols, we get $C^e(t) = \frac{\tau^{TI}}{\alpha^e} K(t)H\{1, G\}$.

Moving on to the workers, observe that they are endowed only with their labor. Therefore, their consumption is determined entirely by the wage rate. The wage rate is given by the marginal revenue product of labor which in our model can be written as

$$w(t) = D(t)H_L\{K_i(t), D(t)L_i(t)\} = D(t)H_L\{K(t), D(t)\}. \qquad (18)$$

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A key property of a BGP is that on such a path, output or income per capita grows at a constant rate. See Acemoglu (2009, pp. 56-67) for a textbook discussion of balanced growth and BGPs.

The RHS of equation (18) can be simplified further using the scale properties of the production function $H\{\bullet,\bullet\}$ and equation (14). This gives us

$$w(t) = GK(t)H_L\{K(t), GK(t)\} = GK(t)H_L\{1, G\}. \qquad (19).$$

Inspecting equation (19) we see that like consumption in equation (15), the wage rate is also *proportional* to the capital stock $K(t)$.

The proportionality of the wage to the capital stock tells us that we can write the consumption level of the creative class---see equation (6)---as

$$C(t) = (1 - \tau^{TI})H\{K(t), D(t)\} - K(t+1) - GK(t)H_L(1, G). \qquad (20)$$

Using equation (14) and our assumption that physical capital depreciates fully or $\delta = 1$, we can rewrite the RHS of equation (20). This gives us

$$C(t) = (1 - \tau^{TI})K(t)H\{1, G\} - K(t+1) - GK(t)H_L\{1, G\}. \qquad (21)$$

Dividing both sides of equation (20) by $K(t)$, we get

$$\frac{C(t)}{K(t)} = (1 - \tau^{TI})H\{1, G\} - GH_L\{1, G\} - \frac{K(t+1)}{K(t)}. \qquad (22)$$

From the properties of a balanced growth path (BGP), it follows that the output of the knowledge good $Q(t)$ grows at a constant rate. This tells us that the intertemporal physical capital ratio $K(t+1)/K(t)$ on the RHS of equation (22) also grows at a constant rate. Inspecting the RHS of equation (22), we know that $H\{1, G\}$ is constant and therefore $H_L\{1, G\}$ is also constant. These findings collectively tell us that the RHS of equation (22) is constant. The important implication of this last result is that consumption by the creative class is also *proportional* to the physical capital stock.

If we denote the BGP growth rate of the economy of our creative region by g^{TI}, then we can now write

$$g^{TI} = \frac{Q(t+1)}{Q(t)} = \frac{C(t+1)}{C(t)} = \frac{K(t+1)}{K(t)}. \tag{23}$$

Using equation (12), we can rewrite equation (23) as

$$g^{TI} = \theta[(1 - \tau^{TI})H_K\{1, G\}]. \tag{24}$$

Now, differentiating both sides of equation (24) with respect to the time invariant tax τ^{TI}, we get

$$\frac{\partial g^{TI}}{\partial \tau^{TI}} = -\theta H_K\{1, G\} < 0. \tag{25}$$

Equation (25) clearly demonstrates that distortionary taxation by the elites on the entrepreneurial creative class unambiguously *reduces* the growth rate of the economy of our creative region. Why does this negative result arise? We provide an explanation in the next section.

4. The Rationale for Reduced Economic Growth

The basis for economic growth in our creative region is the labor augmenting productivity term $D(t)$ which, in the interpretation of Batabyal *et al.* (2025), for instance, is the outcome of the use of a digital technology. This notwithstanding, what is salient to comprehend is that the $D(t)$ term is really determined by the investment decisions undertaken by the creative class.

Because the economy of our creative region is like the well-known AK model in growth theory,[11] in equilibrium, physical capital accumulation is really the only basis for economic growth. Therefore, in this setting, distortionary taxes by the elites levied on the creative class *decrease* the return to physical capital accumulation because the creative class reduces its savings. In turn, this reduction means that physical capital accumulation is lower than what it would be in the absence of the distortionary taxes and this feature of our model *diminishes* the growth rate of the economy of our creative region. This completes our discussion of distortionary taxes and economic growth in a political-economy model of a creative region.

5. Conclusions

In this paper, we studied a stylized creative region populated by three groups of individuals: the elites, the entrepreneurial creative class, and workers. Political competition between the elites and the creative class resulted in the elites imposing distortionary taxes on the creative class. We described why this kind of taxation might arise and then presented two results. First, we showed that this kind of distortionary taxation reduced

[11] See Acemoglu (2009, pp. 387-407) for a textbook discussion of the so-called AK model.

the Markov perfect equilibrium growth rate of the economy of our creative region. Second, we explained the basis for this negative result.

The analysis in this paper can be extended in several ways to shed light on alternate aspects of the tax related interactions between entrepreneurs and governments (the elites) in different real-world settings. Here are three examples. First, it would be interesting to see if, in an environment of the sort analyzed here, taxation can be made less distortionary by examining economic outcomes not in a Markov perfect equilibrium but instead in a subgame perfect equilibrium. Second, it would be instructive to see if a closed-form solution can be obtained in a model with interactions between the elites and the entrepreneurs in our creative region and where the production technology is described not by equation (2) but instead is by a constant elasticity of substitution or CES production function. Finally, one could introduce trade into the model---see Gilbert *et al.* (2015)---and study how trade affects the growth dynamics of a creative region that trades with other creative regions. Studies that analyze these aspects of the underlying problem will provide additional insights into the nature and the impacts of tax policy stemming from political competition between the elites and the entrepreneurs in creative regions.

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