The Need for Governmental Inefficiency in Plato's *Republic*Gil Hersch

In book II of Plato's *Republic*, Socrates discusses the cities of necessity and luxury (372d-373a). Discussions of these cities have often focused on citizens desiring more than they need, which creates a demand for luxury. Yet the second part of the equation, which is not usually recognized, is that there must be sufficient supply to meet this demand. The focus of this article is on the importance of supply in the discussion of the first two cities in book II of the *Republic*. This article argues that the way Plato models the cities makes it the case that a surplus above levels of necessity will be generated from time to time. That the unwanted surplus cannot be spontaneously disposed of entails that the first two cities are institutionally incomplete. A government is needed in order to coordinate the disposal of the surplus supply the city will produce.

1. Introduction

In book II of Plato's *Republic*, Socrates proposes that finding justice in the city will be helpful for finding justice in the individual (Plato, Rep. II 368d-369b, tr. G.M.A. Grube, revised C.D.C. Reeve). To this end, Socrates, with the help of Adeimantus and Glaucon, lays out the theoretical foundations of the first city they will discuss, often referred to as the 'city of necessity' or the 'city of pigs'. Socrates describes this city of necessity, as a "true" and "healthy" city (372e-373a). Glaucon, by contrast, considers such a city a "community of pigs" (372d). At Glaucon's request Socrates turns to describe an expanded version of this city, which includes amenities

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¹ There are a variety of views on the role of the first city in the *Republic*. Devereux (1979) and Schofield (1999) argue that Plato introduces the first city to show that, contrary to Thrasymachus' view, a cooperative state of nature can exist. Annas (1981), in agreement with (Crombie, 1962), view the first city as a 'false start.' Morrison (2007) and Jonas, Nakazawa, & Braun (2012) argue that Socrates genuinely believes the city is a healthy and desirable city, and that it is in fact superior to the *Kallipolis*. McKeen (2004) follows Cross & Woozley's (1964) in arguing that it is meant to represent a plausible and stable city, only slightly less stable than the *Kallipolis*. Ferrari (1990) argues that the first city is one of Plato's discontinuities in his argument. Similarly, Amemiya (2007) views the shift away from discussing the first city as motivated by a desire to focus on the type of city that is more prone to injustice.

such as proper couches, paintings and embroidery, and delicacies and desserts. This second city is usually referred to as the 'city of luxury,' which Socrates considers "feverish" (372d-373a).

Why does Plato have Glaucon interrupt Socrates' discussion of the true and healthy city to shift to a discussion of a feverish one? Several scholars (Morrison, 2007; Reeve, 1988; Rosen, 2005; Wallach, 2001) contend that the citizens of the city of necessity have desires that go beyond what they need, which creates a demand for luxury, deeming the city of necessity inherently unstable. Yet focusing only on demand misses half of the equation. The second part of the equation, which is not usually recognized, is that there is sufficient supply to meet this demand. The focus of this article is on the importance of supply in the discussion of the first two cities in book II of the *Republic*.²

In this article, I argue that even if there is no intention to increase supply, the way Plato models the first city makes it the case that a surplus above levels of necessity with be generated from time to time. The inevitability of a surplus above levels of necessity provides an explanation for why Socrates moves so quickly to the third city and introduces a government. The first two cities are institutionally incomplete. The problems that give rise to a feverous city of luxury can be attributed, at least in part, to the existence of a surplus, and a government is needed in order to coordinate and control the surplus supply the city will produce. Consequently, a focus on supply in the *Republic* illuminates a heretofore underdiscussed part of the explanation for Socrates' proposal of the *Kallipolis*.

In §2, I clarify the role demand plays in the discussion of the first two cities. In §3, I introduce supply as an often-disregarded factor in this discussion. In §4, I argue that a surplus will inevitably be created in the city of necessity. In §5, I present, and subsequently dismiss,

² Weinstein (2009) leads the way by highlighting the shift from a communal economy to a market economy, and the vital role the market plays in the discussion of the cities in book II.

several ways in which the surplus could be used efficiently while the city remains a city of necessity. In §6, I argue that disposing of the surplus, a public bad, requires government coordination. In §7, I conclude that the problem of surplus requires governmental inefficiency.

2. Demand in the city of necessity

The city of necessity, according to Socrates, arises due to individuals' demand to fulfill their needs: "it's our needs, it seems, that will create [the city]" (369c). Human beings have demands that they cannot meet on their own, and that require them to organize themselves into cities.

Thus, the focus in the first city is on demand that is generated by needs, rather than by desires. If we are to think that in the city of necessity there is demand for things that exceeds what citizens need, we must distinguish needs from desires that go beyond them, and then have reason to attribute such desires to the citizens of the city of necessity.

In 372a-d Socrates provides a description of the kind of life and the kinds of goods those living in the city of necessity will enjoy. Nevertheless, it is not entirely clear what constitutes needs for Plato. It is not clear whether we are to understand necessities in the first city as what is needed in order to allow citizens to merely subsist or whether they are needed for citizens to live well.³ Nevertheless, it should be uncontroversial to claim that necessities are necessary, and we can leave open the question of necessary for what kind of life. Plato has some conception of necessity that citizens should not fall below. What matters is that they are necessities, without which citizens will suffer a deprivation of some kind. Whatever Plato considers necessities to be,

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³ McKeen (2004) argues that the city is not needed to meet individuals' basic needs for subsistence, but rather it is needed to meet the conditions for individuals to live well (82-4). McKeen provides Socrates' claim that it is nearly impossible for a city to survive without imports (370e) as evidence for her view, since basic necessities could be supplied self-sufficiently, and it is only when considering the necessities for a good life that Socrates' claim can be considered reasonable. Yet such an interpretation is at odds with Glaucon's criticism that such a city is one fit for pigs (372d). If the city of necessity were capable of guaranteeing people with a good life, it would not merely be a city fit for pigs. Since Socrates entertains this criticism, we might infer that there is at least some merit to it.

the important distinction is between necessities and luxuries, or a person's needs and their desires that go beyond these needs.

Berry (1989) goes some way towards clarifying the difference between necessities and luxuries by explaining that:

Luxuries, as Socrates defines them, still pertain to the body (food, clothing and housing) but they are no longer restricted to meeting these 'natural' needs. Accordingly, the enflamed city experiences 'fancy' food (dainties), 'fancy' clothes (embodied) and 'fancy' dwellings (with gold and ivory) and 'fancy' women. The latter implying perhaps sex as a desire independent of the 'need' to have a controlled number of children. (p. 10)

But this does not entirely settle the matter, since the 'natural' needs Berry contrasts luxuries to are not fully explicated. One way to understand these needs, then, is to view them not as a matter of quantity, but as a matter of quality. Berry later continues to write that "[t]he luxurious city represents an expansion of what we might call 'qualitative desires'... Plato implies that these qualitative aspects mark a move beyond need." (10) Consequently, it seems reasonable to assume that living at levels of necessity is a matter of the type and quality of goods one consumes rather than the quantity of goods one consumes.⁴

The position that we ought to view the citizens in the city of necessity as having desires that go beyond what they need is supported by several scholars. Reeve (1988) argues that the first city is the *Kallipolis* for money-lovers and it can be easily impacted because "it includes nothing to counteract the destabilizing effects of unnecessary appetites and the pleonexia to which they give rise" (171). Wallach (2001) thinks that there nothing in the first city that is designed to limit its citizens' material needs (251-2), and he goes on to state that "in practice, as well as in Socrates' logos, there was nothing to stop this city from becoming inflamed, greedy, or imperialistic, and eventually stumbling into war" (252). Rosen (2005) calls the city of necessity

⁴ I thank two anonymous referees for making this distinction clear to me.

subnatural or unnatural, because "human beings will not consent to maintain their lives at that level of simplicity" (81). Lastly, while Morrison (2007) does not think there is anything in the *Republic* to make us think that the first city is impossible, he recognizes that luxurious desires which make a city "feverish" are assumed (253).⁵

Coincidentally, a contemporary fundamental assumption in economic thinking is that people always prefer more to less. This is the assumption of monotonicity or local non-satiation in the standard model of consumer choice (Mas-Colell, Whinston, & Green, 1995). Thus, to claim that the citizens of the first city have an insatiable demand for goods might seem all the more plausible to contemporary readers.

Overall, it seems reasonable to view the citizens of the city of necessity as having desires that go beyond their needs, thus creating a demand that exceeds levels of necessity. Nevertheless, demand *by itself* does not determine all aspects of a city's economy. Even if demand were limitless, there must be supply to match it. Supply is limited by the production possibilities frontier. Even if people cannot regulate their desires, how much they eventually consume is regulated by how much they can produce. If production is low, then there will not be enough supply to meet demand.⁶ If supply is sufficiently low as to not rise above levels of necessity, then insatiable demand cannot have any deleterious effect in terms of consuming above levels of

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⁵ Not everyone shares the view that the citizens of the first city should be thought to have such desires. McKeen (2004) argues that the citizens of the city of necessity are in fact capable of self-regulating their appetitive desires in line with their long-term rational self-interest. Individuals "are able to keep their appetitive desires in check through calculations of their self-interest based on considerations of the likely effects of uncontrolled desires" (80). Thus, in McKeen's view the first condition is not met.

⁶ If citizens can live while consuming below Plato's levels of necessity, then some standard complications can arise without a government to prevent them. First, a black market could emerge in which people trade some of their necessity-level goods for other goods they desire to consume (either more of some necessity level good or else a luxury good made from necessity goods elements). Alternatively, the more powerful elements in the city could appropriate more than their fair share in order to consume at levels higher than necessity. Even more fundamentally, there is no need to assume that the necessities are distributed equally. There is nothing prohibiting the possibility that people need different kinds or different quantities of goods. It might be the case that what it means to keep some at necessity levels is different from what is needed to keep others at such levels.

necessity. In the next section, I turn to argue that in order for the citizens of the city of necessity to consume above levels of necessity requires that the city of necessity will produce, and subsequently supply, more than is necessary.

3. Supply in the city of necessity

To better understand the role supply can play in Plato's cities, it can be helpful to think of the cities as economic models. Economists use models in order to, among other things, gain insight about the world, and there are various ways to understand models. Models can be understood as idealizations (Mäki, 2009), Galilean experiments (Cartwright, 1989, 2009), literary fictions (Morgan, 1999), or credible worlds (Sugden, 2000, 2009), among others. Models are, to use Sugden's terminology, credible worlds, used to highlight the relationships between causes and effects in the 'real world.' Thinking of the cities in the *Republic* as economic models makes it easier to see that if we make a certain set of assumptions about a city, some consequences will necessarily follow. This perspective can make more salient how the assumptions made in the city of necessity 'model' can lead to somewhat surprising consequences.

Socrates is clear that a person cannot simply supply all of their own needs: "I think a city comes to be because none of us is self-sufficient, but we all need many things" (369b). He begins by discussing how the city can meet citizens' needs for food, shelter, and clothing (369c-d). To do this, a minimal level of goods must be produced and supplied—that which all the citizens of the city jointly need. If the city could not jointly produce sufficient quantities of food, shelter, and clothing to meet the citizens' needs, the people of the city would suffer some sort of deprivation and there would be no justification for the city to come into being.

Organizing into a city is beneficial because division of labor and specialization can increase the supply enough to meet citizens' needs in a way that they cannot achieve individually. In order to produce the most goods of the best quality, citizens must, according to Socrates, assign every person to the one job for which he is "naturally suited, and which he was to practice throughout his life to the exclusion of all others, and so become good at this job and never miss the right moment for action" (374b-c). In this way, according to Socrates, specialization leads to the production of more and better-quality goods: "more plentiful and better-quality goods are more easily produced if each person does one thing for which he is naturally suited, does it at the right time, and is released from having to do any of the other" (370c).

Schofield argues that the city of necessity, and the division of labor in it, are just one step in Plato's dialectic. Schofield describes Plato's discussion in (370a–c) as a "dazzling and dazzlingly original piece of theorising" [sic.] (67), though he denies that it is meant to launch the science of economics. Specialization and division of labor, which lead to an increase in supply, also play an important role later in the *Republic*, where the eventual class structure in the beautiful city builds on divisions that already emerge in the city of luxury (Silvermintz, 2010; 764). This is evidently the case when Socrates turns to discuss the need for professional soldiers in response to Glaucon's question:

'But can't citizens fight for themselves?'

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⁷ It is interesting to note that modern economic thinking diverges from Plato's in this regards. Adam Smith argues that differences in natural aptitudes do not play an important role in why people end up fit for different jobs, and as a result treats labor as homogenous:

The difference of natural talents in different men is, in reality, much less than we are aware of; and the very different genius which appears to distinguish men of different professions, when grown up to maturity, is not upon many occasions so much the cause, as the effect of the division of labour. The difference between the most dissimilar characters, between a philosopher and a common street porter, for example, seems to arise not so much from nature, as from habit, custom, and education. (Smith, 2003; 25)

'Not if the principle, on which we all, yourself included, agreed when we started constructing out state, is sound. And that was, if you remember, that one man could not do more than on job or profession well.' (374a)

Even if launching the science of economics was not Plato's intention, the discussion of the division of labor makes it clear that Plato recognizes that we must consider supply as well as demand in any discussion of the city.

The importance of supply is made even more apparent once we note the degree to which insufficiency plays a role throughout the discussion of the first two cities (Futter 2017). First, as already has been made clear, the insufficiency of each of our individual autarkic abilities to supply our own needs is what motivates the formation of the city. Second, suppliers (the therapists of the body) have insufficient ability to supply citizens' needs on their own. The farmer needs a plough from a blacksmith to farm their field, who needs ore from the miner to make the plough, who needs candles from the candle maker to see in the mine. The suppliers' need for tools to supply the citizens' needs creates a secondary demand for artisans who can supply these secondary needs. Lastly, while a city can supply many basic needs on its own, a city is insufficient in its ability to supply all its complex needs on its own. Meeting a demand for things that can only be obtained from other cities necessitates inter-city trade.⁸

⁸ As Socrates argues that "it's almost impossible to establish a city in a place where nothing has to be imported" (370e), and even the city of necessity is involved in trade. To conduct any such trade, the city of necessity must have something with which to trade. A certain amount of goods beyond what the citizens of the city immediately consume must be created: "Therefore our citizens must not only produce enough for themselves at home but also goods of the right quality and quantity to satisfy the requirements of others" (371a). What this extra production above what citizens consume gets exchanged for in the intercity trade are themselves goods that the city of necessity requires to remain at the level of necessity. Socrates does not specify what these goods are, simply stating that the city will "need yet further people to import from other cities whatever is needed" (370e). One might imagine these needs might be various natural resources the city does not have direct access to (e.g. iron ore, wood, or salt), or agricultural commodities that cannot be produced by the city (e.g. warm climate crops for a city in a cold climate (olives) or crops that only grow at higher altitudes for a lowland city (coffee)). The extra production required to conduct trade is different from the surplus that will be discussed in the rest of this article. The extra production required for trade merely gets the city other goods that constitute a necessity for it. The surplus that will be at issue in our discussion is a surplus above and beyond what is required for trade. It is the production surplus that goes beyond satisfying needs either directly or indirectly through trade.

All this makes clear that we must recognize not only the importance of demand, but also the importance of supply when discussing Plato's first two cities. While it matters whether people have desires that exceed their needs, the supply side of the city is also crucially important. In the next section, I argue that the way Plato sets up the city of necessity gives us reason to believe that supply will inevitably exceed levels of necessity, and a surplus will be necessarily be created.

4. The inevitability of surplus

According to Socrates, to supply people's needs, a division of labor and specialization are necessary. The starting assumption is that an individual, i, can, on her own, at most produce goods at quantity Q_i , which is less than she needs, N_i ($Q_i < N_i$). When Socrates says that he thinks "none of us is self-sufficient, but we all need many things" (369b), it is clear that Q ($Q = \sum (Q_1 + Q_2 + \cdots + Q_i)$) should not be considered sufficient for living at what he sees as a minimal level of necessity N ($N = \sum (N_1 + N_2 + \cdots + N_i)$), for the citizens of the city all together (Q < N).

To solve this problem, Socrates introduces specialization, division of labor, and exchange. Together, these elements bring about an enhanced efficiency of production $(Q' \ge Q)$. On Socrates' account, the formation of the city allows people to rearrange the system of production and consumption. Instead of each individual doing it all at the individual level, an economic system at the city level is created. This, in turn, enables more production and consequently more consumption. The result is that the citizens of the city of necessity are able to provide for themselves at levels of necessity N.

⁹ While this discussion is framed in terms of quantity, this is only meant as a simplification and a place holder for some combination of quantity *and* quality that is easier to represent functionally.

The next step requires several additional assumptions. First, at any given period, t, the city must produce enough quantity of goods Q' such that it is greater or equal to the level of necessity $(Q' \ge N)$. If overall production, Q', in the city drops below overall levels of necessity, N, then at least some individuals' needs will not be met. What this entails is that the target level of production must also act as the floor level of production. Production cannot drop below N. If Socrates were to advocate a city, not of necessity, but of (even mild) luxury, in which some of the things produced are meant to satisfy wants that go beyond needs, this problem would not arise. In such a city, goods beyond the levels of mild luxury would not need to continuously be produced to maintain consumption *more or less* at levels of mild luxury. If from time to time production drops below levels of mild luxury, it is perhaps inconvenient, but it does not threaten to deny citizens of things they need. Thus, the fact that Socrates is focused on a city consuming at levels of necessity is critical for the unintended, though inevitable, generation of surplus above levels of necessity.

Second, the amount produced at each period t is not fixed. The city is susceptible to a variety of potential external shocks. These include both changes in supply (e.g. reduced production due to inclement weather or natural disasters, or increased production due to favorable weather conditions), as well as changes in demand (e.g. increased need for warm clothing during a prolonged cold spell, or decrease in demand for waterproof shelter during dry spells). Even if the city of necessity were entirely self-sufficient, it would be susceptible to shocks that are beyond its control. Given that agricultural production constitutes a substantial

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 $^{^{10}}$ For simplicity's sake, I am assuming at the moment that goods must be consumed at the time t they are produced. I relax this assumption later in the article.

¹¹ In contemporary society technological advances often give rise to changes that affect supply. However, due to the much slower pace of technological advances in antiquity, I do not address such advances as a relevant cause in this discussion.

portion of overall production when living at levels of necessity, and given that agricultural production is affected by a variety of things (e.g. blight, floods, drought), it is reasonable to assume that production cannot be guaranteed at a particular fixed level in every period t.

This problem is exacerbated because the city of necessity is engaged in inter-city trade (370e). Changes that occur in other cities can also affect both supply and demand for the city of necessity. If the city of necessity has a relatively good (bad) year, it will need to produce more (less) goods in order to get the same quantities of goods from the cities it trades with (*ceteris paribus*). Conversely, if cities with which the city of necessity engages in trade have a relatively good (bad) year, it will need to sell less (more) of its own goods to get the same quantities (*ceteris paribus*).

A third assumption is that the amount demanded for consumption at levels of necessity does not perfectly correlate with the amount produced (N is not a function of Q). Both production and consumption depend on factors not under the city's control, such as weather. However, production and consumption do not depend on the same factors to the same degree. Production and consumption are not perfectly correlated (e.g. stormy weather might increase the demand for housing, but this does not correlate with an ability to produce more housing).

Since production is not fixed at every period t, for people not to drop below levels of necessity, production must always be equal or greater to levels of necessity $(Q' \ge N)$ at every period t. If the quantity produced after specialization, Q', is exactly equal to the needs of the citizens, N, we arrive at an equilibrium, (Q' = N). Such an equilibrium is not likely to emerge spontaneously. Since the citizens' needs and production capabilities are independent from one another, it is implausible that they would, as a matter of coincidence, perfectly match at every period t. Q' is not fixed at every period t, so it sometimes will be strictly greater than the level of

necessity (Q' > N). This means that for some period t_i supply will be greater than is needed. Consequently, maintaining a city at the level of necessity requires producing surplus above levels of necessity from time to time.

That supply exceeds levels of necessity does not in itself entail that the city of necessity is unstable and consequently institutionally incomplete. Even if more is produced than is needed at a given time period, the citizens of the city must also generate sufficient demand for the additional product in order for the city of necessity to cease to be a city of only necessity. In the next section, I present, and subsequently dismiss, several ways in which one might imagine the city of necessity can use the surplus while remaining a city of necessity. In §6, I discuss how the issue provides additional support for the need for a government.

5. Efficiently using the surplus in the city of necessity

Surplus will be produced in the city of necessity and something must be done with it. In a liberal market economy, if any surplus is produced, suppliers will lower the price of the good until it reaches a sufficiently low price-point for there to be enough consumers willing to purchase it at that price. The surplus is eliminated when prices are lowered, because excess supply is met with increased demand, resulting in the market returning to a state of equilibrium. This is the mechanism by which prices clear the market, also known as Say's law.¹²

However, to maintain the city of necessity, consumption cannot exceed levels of necessity. 13 Yet none of the different ways we might imagine using the surplus can maintain a city of necessity. Consuming the surplus in its current form or trading it with other cities will

¹² I thank the editor for making this connection.

lead the city to immediately cease to strictly exist as a city of necessity. Storing the surplus for future use or using it to increase the population merely push back the problem to a later date. If the surplus will be efficiently used in any way, the city of necessity will inevitably cease to strictly exist as a city of necessity.

If we follow Socrates' dictates that only those goods and services that count as necessary will be produced (372d), then the surplus will also be in terms of necessary goods: basic food stuff, rudimentary housing, and coarse clothing. One way the surplus can be used efficiently is to consume these goods immediately beyond what is required for maintaining some level of necessity. However, the moment individuals start eating more bread than they need to satisfy themselves, wearing more clothes than they need for warmth, and living in more houses than they need for shelter, they are no longer strictly living at the level of necessity.

The city does not automatically transform into a city of luxury because consuming more basic goods is not equivalent to consuming luxury goods. ¹⁴ Moreover, simply consuming more basic goods would not satisfy Glaucon, who wants for citizens to have not simply greater quantities of necessary goods, but rather goods of greater quality—the type of amenities that he and his contemporary have come to expect (Burnyeat, 1997; Futter, 2018; White, 1989). White (1989) articulates this nicely:

It [the spirited part of the soul (*thumos*)] does not want two pieces of meat; it wants one with relish. It does not want two coats; it wants one coat with a gold braid on it. It does not sexually desire two women rather than one, or two men rather than one; it wants a sexual object that is "improved"... anything, it seems, as long as mere nature is gone beyond, adorned, transformed. (190-1).

reviewer for asking me to address this point.

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¹⁴ One might reasonably argue that consuming only basic goods, at any amount, does not constitute a move away from a city of necessity. The disagreement here is on whether 'necessity' is solely a question of quality, or whether it is also a question of quantity. I am inclined to the latter, however how one settles this does not matter, since on either view consuming more basic goods does not constitute luxury as Glaucon views it. I thank an anonymous

Moreover, there probably is not much demand for a lot more of this kind of basic goods. There is an upper limit to the amount of such goods a person would desire to consume. ¹⁵ As Berry puts it: "[t]hese needs have fixed limits so that there is no purpose to be severed by wanting more" (Berry 1989, p. 5). But even if consuming *some* more basic goods at levels that exceed what is necessary might not create a problem in itself, when the surplus exceeds that level the problem of surplus is reintroduced.

Another possibility, then, is to trade the surplus with other cities in exchange for more luxurious items. When the city generates surplus beyond levels of necessity, it can efficiently use this additional surplus through *even more* trade with other cities. If there are only so many loaves of bread and articles of clothing (the city of necessity cannot trade a surplus in housing as this is not a transportable good) that the citizens of the city of necessity desire to consume, they can get rid of all the extras. However, trade is not unidirectional. For there to be trade, other cities must provide the city of necessity something in return for the goods the city of necessity provides.

Trading the surplus with other cities makes it possible to consume a different bundle of goods, one which in principle has no upper bound. People can only consume so much food, but the quality can always be enhanced. Moreover, going beyond such necessities as food, clothing, and shelter, we can consume comforts, art, and—most obviously lacking an upper bound—positional goods. This solution would use the surplus efficiently, but it would also allow the citizens of the city of necessity to consume beyond necessity levels and would transform the city of necessity into a city of luxury, the precise thing we are trying to avoid.

¹⁵ Individuals can eat more bread than they need to be satisfied, spread out into more spacious housing than they need for shelter, and enjoy more articles of clothing than they strictly need. Nevertheless, while there is no upper limit to the amount of food, clothing, and houses an individual can own, there is a limit to how much of those they would actually desire to consume.

Although consuming the surplus in its current form or trading it for other goods both entail immediate consumption, there are other ways of efficiently using the surplus that will not result in immediate consumption beyond the level of necessity. Earlier we made the simplifying assumption that goods produced must be consumed at the same period *t* they were produced. Yet we can relax the assumption that all the goods produced in one period can only be consumed during that period. Indeed, some basic goods like housing and clothing can last and be used over several periods. Even more perishable goods like food can be stored in different ways. Granaries can store wheat for extended periods of time, vegetables can be pickled, and fruits can be dried.

Once we drop the assumption that goods must be consumed contemporaneously with when they are produced, we open up additional ways of using the surplus efficiently. Recall that the reason a surplus is created to begin with is that we assumed that production is not fixed. Production levels are impacted by variations in things like weather or the introduction of some blight (e.g. locus), and so is not entirely dependable. When it comes to production, some years will be lean years and some years will be plentiful. Instead of aiming to produce at or above necessity levels *every year*, the city of necessity can rely on surplus that was created during the plentiful years in order to supplement the low levels of production during lean years. In this way, the city of necessity can store its surplus to be used during years in which it comes up short. The city of necessity can simply rely on the surplus created during years of glut to balance the shortage during years of deficiency.¹⁶

The surplus problem thus transformed is lessened, but it does not go away. The unpredictability of production makes it the case that we simply do not know how much basic

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¹⁶ This surplus need not necessarily be stored in the form of the original goods produced. Even if such goods have a long shelf-life, they will eventually go bad. Instead, the surplus could be converted, though trade, into non-perishable goods such as precious metals (e.g. gold or silver), easily storable and readily converted through trade back into necessary goods whenever needed. I thank an anonymous reviewer for suggesting this possibility.

goods we will need to produce in glut years in order to cover ourselves during lean years. As a result, we will still need to err on the side of creating some surplus over multiple time periods if we wish to meet citizens' needs. Introducing the possibility of storage merely turns it from a recurring problem at every time period to a single multi-period problem. If the city is to avoid falling below levels of necessity over time, overall surplus over multiple time-periods must still be created. Relaxing the co-temporal consumption assumption does not change the fact that surplus must be created and eventually consumed.

Lastly, the surplus could be used efficiently to support an increase in population. As long as the population increase matches the surplus available, everyone can remain at necessity levels. Socrates tells us that in the city of necessity the citizens will "enjoy sex with one another but bear no more children than their resources allow, lest they fall into either poverty or war" (372b). If the city generates a surplus, then it seems that there is no problem with increasing the size of the population, since as long as everyone remains at the level of necessity, "they'll live in peace and good health, and when they die at a ripe old age, they'll bequeath a similar life to their children" (372d).

Yet increasing the population does create problems. The increased population can itself contribute to overall production. If the additional population is as efficient as the original population it will actually exacerbate the surplus problem. However, if we assume diminishing marginal productivity, we can imagine that we arrive at a point in which the additional population contributes less than it consumes, and thus eliminates the surplus. In this case, we remain with the problem of matching the quantity produced to the quantity consumed (i.e.

matching (Q' = S)). We now simply have a larger population for which a precarious balance must be achieved.¹⁷

Increasing the population of the city too much would also cause the city to need more land. If no 'free' land is available, this would require the city to seize some of its neighbors' land, leading it on a path to war. This, in turn, would then require the city to create an army and introduce a guardian class. In fact, such a development would be similar to Plato's actual description of how the luxurious city requires more land to support its demand for luxuries, and how this eventually leads to its establishing a guardian class and transforming into the third city—the beautiful city 373d-374e).

Any attempt to use the surplus efficiently while maintaining consumption at levels of necessity will fail. As I discuss in the next section, the only way to maintain a city of necessity is to embrace inefficiency and simply dispose of the surplus. This however, requires a government to coordinate the effort.

6. Paving the way to a government

Surplus above levels of necessity, which is undesirable for maintaining the city of necessity, will be produced. Anything beyond levels of necessity is, from the perspective of the city, not a 'good', but a 'bad'. Supply in the city of necessity is analogous to a crowd in a nightclub. A nightclub with barely anyone there is not very enjoyable. The presence of additional people would make us better off. However, once too many people are at the club, making it too crowded

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¹⁷ This discussion brings to mind Malthus's claim that any increase in productivity will only increase overall well-being in the short term (Malthus, 1798). Malthus argued that an increase in productivity will in turn lead to an increase in population that will consume the surplus and bring the population back down to subsistence levels. This "Malthusian trap" is depicted as a negative consequence of human nature. On Socrates' view, this would actually be a positive outcome, since it would preserve the city at the level of necessity (assuming no one drops bellows levels of necessity).

for our taste, the presence of additional people makes us worse off. A similar thing can be thought with respect to supply in a city that has a target consumption level. When we are under the target consumption level, more supply is better. However, once we hit the consumption target of necessity, any additional supply now harms the city. In this sense surplus is a 'bad'. The problem in the city of necessity is that the goods produced are a desirable good up to levels of necessity, and an unwanted bad above those levels.

If the citizens of the city of necessity possessed a Socratic temperance and were capable of self-regulating their desires in line with their long-term rational self-interest, there would be a simple solution to the problem of surplus. Citizens would spontaneously consume as much as they require to remain at levels of necessity, and without any additional coordination let the unused surplus rot (or less dramatically—dispose of it in some way). Although not an efficient use of resources, this is a way of guaranteeing sufficient production to maintain consumption at necessity levels, while avoiding consuming too much.

However, this spontaneous solution to the surplus problem does not seem very likely. First, as was argued in §2, citizens of the city of necessity have desires that go beyond what they need. Second, as was argued in §3-5, a surplus will necessarily be created, so there will be sufficient supply to meet this demand. Left to their own devices, we can assume that the excess supply will be met with an excess demand, deeming the city of necessity inherently unstable.

Nevertheless, consumption at luxury levels can still be avoided. Surplus is something that has negative value for the city, yet cannot be exchanged for something else the city values. As the surplus problem is not any particular individual's problem, but a public one, the surplus is a

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¹⁸ There are a variety of things that get produced that can be considered 'bads', such as air pollution or hazardous waste. These, however, tend to be byproducts in the production of whatever 'good' we are interested in. The case of surplus is dissimilar to these.

public bad.¹⁹ Providing public goods and avoiding public bads, according to usual economic orthodoxy, is one thing governments do better than markets. Since surplus is, on Socrates' reasoning, a public bad, this provides a justification for a government to provide a solution that goes beyond the market. The simple solution is to dispose of the surplus, either by dumping it in the sea, burning it, or giving it away for free (outside the city).²⁰ Since the surplus is a public bad, yet at the same time has value for at least some citizens (those who do want to consume it), a government is needed to coordinate such an undertaking.

The guardian class in Socrates' third city, the *Kallipolis*, is a good candidate for coordinating the disposing of this surplus. Although the *Kallipolis* is not the only social arrangement that can provide the requisite organization, some governmental structure will be necessary to prevent the feverishness associated with the city of luxury. This solution is in line with the way the discussion of the cities actually develops in the *Republic*. While the *Kallipolis* never brings consumption back down to levels of necessity, the introduction of the guardian class is meant to purge the city of feverous desires. Indeed, Plato has an elaborate plan of how the guardians will control the city and ensure that citizens' desires are kept in check, not least of which involves a reliance on the 'noble lie' (414b-415d). We might thus view one of the roles of the guardian class as maintaining the city at a fixed level of consumption (though higher than a level of necessity).

Both the guardian classes (rulers and auxiliaries), who are trained from birth to curtail their desires for goods, possess the requisite Socratic temperance needed to avoid desire more

¹⁹ A public bad is symmetrical to a public good, which is a non-excludable and non-rivalrous good (e.g. parks). The public bad is similarly cannot be avoided by paying to opt out (pollution is the classic example of a public bad). ²⁰ Another option, which I do not find very appealing, is mentioned in George Orwell's novel, *1984*. In the book, Winston reads an explanation for the perpetual war in which the world's three superpowers are engaged, according to which the purpose of such war is to "eat up any surplus that might exist after meeting the bare needs of the population."

than is needed, and so all is well with them in that regard. Furthermore, as Fuks (1977) makes clear, the guardian classes live in an all-inclusive communism with no private property at all. Thus, regulating consumption for the guardians need not be a problem.

The need for governmental regulation of the consumption of surplus is confined to the third, productive class. Fuks (1977), in relation to the problem that arises by the condition of poverty and riches, provides us with some preliminary thoughts on how the government in the *Kallipolis* could go about dealing with the problem of surplus. Fuks writes that "[t]here are indications in the *Republic* that the problem was solved by *restriction of the use* of private property, and by *organizing and controlling* economic activity" [emphasis in original] (73). Fuks goes on to elaborate on four such indications: (a) there is economic organization and supervision that leads to people being sent to the task that best fits their nature, (b) the economic class' composition, as can be inferred from the strict moving children between classes based on their traits, is rigorously and constantly controlled, (c) there is population control pertaining to family size, and (d) the guardians are required to protect the city against political alliances that will give the economic class the ability to harm the city (74).

One might imagine that instead of the guardians employing the complex apparatus that Plato lays out in the *Republic* in order to, in effect, control demand, it would be much simpler to control supply by disposing of surplus beyond levels that are deemed by the guardians as appropriate. Yet this is not the case. As history has repeatedly proven, it is notoriously difficult for a governmental central planner to regulate production and distribution, especially when the citizens are interested in consuming more than they are allotted. Black markets, smuggling and barter are always quick to appear. While Plato's way of maintaining consumption at a less than

feverous level by manipulating demand is by no means simple, it has a much better chance of succeeding that if he would propose doing this by trying to manipulate supply.

7. Conclusion

In this article, I focused on the importance of supply in the discussion of the first two cities in book II of the *Republic*. There has not been much discussion in the literature of the role supply plays in the development of the cities in Plato's *Republic*, something that I have rectified in this article. I argued that the problems that give rise to a feverous city of luxury can be attributed, at least in part, to the existence of a production surplus, and that a government is needed in order to coordinate and control the surplus supply the city will produce.

To sustain a city at necessity levels requires that the consumption target level is also the minimal consumption level. Yet we cannot assume that production (especially agricultural production) is stable over time. Since production fluctuates, yet must always meet the minimal consumption levels, sometimes surplus above levels of necessity will be created. This surplus is a public bad (insofar as we seek to remain at levels of necessity), yet if citizen's do not possess a Socratic disposition and cannot self-regulate their desires, there is no spontaneous mechanism to dispose of this surplus without moving away from the city of necessity. Only a coordinated effort of the type governments can provide can ensure that surplus is disposed of by either throwing or giving it away. A government is needed not only for all the reasons traditionally attributed to Plato, but also because of the need to deal with unwanted surplus. Such a government could be the *Kallipolis* that Socrates advocates.

A consequence of this discussion has to do with the received wisdom that government intervention in the economy necessarily creates inefficiencies. This standard view holds in the

case of the *Republic* as well. However, in the case of the *Republic*, the normative assessment of government creating inefficiencies as a bad thing is flipped on its head. Instead of viewing the reduction in efficiency that is brought on by government intervention as something negative, in the context of this discussion it is something positive. The problem the government is trying to solve in this case is hitting a consumption target level, preventing both too little and too much consumption. In order to prevent too little consumption, surplus beyond the target consumption must sometimes be produced. In order to prevent too much consumption, whenever such surplus exists it must be disposed of in an inefficient way. Assuming, as Socrates does, that we do not wish the citizens of the city to consume too much, the inefficiency inherent in government intervention in the market is actually beneficial.²¹

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