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Competition or Conflict? Beyond Traditional Ordo-Liberalism Malte Dold and Tim Krieger February 2017

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Competition or Conflict? Beyond Traditional Ordo-Liberalism^{*}

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Abstract

According to the traditional ordo-liberal view of the *Freiburg School*, the central role of the state in economic affairs is to set up rules that create a competitive order within which private actors have sufficient incentives to coordinate their economic affairs efficiently. Underlying this view is the implicit assumption that, given the right institutional framework, competition within markets is mainly characterized by peaceful and conflict-free rivalry between actors that leads to an optimal allocation of resources. In such a setting, competition may be described as a "record-type" game. This view, however, ignores the possibility that competition itself may very well trigger conflict rather than having an appeasing effect. In this case, competition appears to be a "struggle-type" game in which competitors invest in conflict activities that are not efficiency enhancing but rather resource wasting. Against this background, ordo-liberalism has yet to provide a clear-cut distinction between competition and conflict. In addition, it fails to identify – in a normative way – which institutional and regulatory framework could hamper conflict sensitivity of economic competition, given the harmful effect of conflict on the security of property rights. Our contribution investigates how the ordo-liberal research program needs to be extended when introducing conflict.

Keywords: ordo-liberalism, Freiburg School, conflict economics, competition

JEL Classification: B25, D02, D4, D63, D74

The efforts of men are utilized in two different ways: they are directed to the production or transformation of economic goods, or else to the appropriation of goods produced by others.

[Vilfredo Pareto 1971 (1927), p. 341]

Competition vs. Conflict

Economists consider competition to be a highly effective mechanism to achieve an efficient allocation of resources and, thus, to maximize social welfare. The principles of scarcity, private property, freedom of contract and exchange between equal legal subjects are essential characteristics of free markets, in which each individual is pursuing his or her own self-

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interested ends (Bonefeld 2012). Under these conditions, a well-functioning price mechanism allows voluntary and peaceful social cooperation between autonomous market actors to the benefit of the whole economy. Different from the classical libertarian idea of the night-watchman state as the basis of fully functioning competition, the proponents of the *Ordo-liberal School* have emphasized the necessity to protect the competitive order against the accumulation of private economic power through an appropriate institutional order (Eucken 1952).

Only under the rules of this order, typically anti-trust legislation, competition may work as "the most magnificent and most ingenious instrument of deprivation of power in history" (Böhm 1960: 22, cited in Vanberg 2004). In this context, Eucken (1949: 25) argues in favor of "performance competition" (*Leistungswettbewerb*) and against "hand-to-hand combat" or "prevention competition" (*Behinderungswettbewerb*), i.e., competition by means that are directed at preventing competition from other producers (Vanberg 2004). His approach, which is also at the heart of the concept of a social-market economy, combines ideas of (social) cooperation through the invisible price mechanism with "record-type games" that pursue excellence or competitive advantage, while rejecting "struggle-type games" which determine winners in zero-sum games (Shionoya 1995).

The ordo-liberal concept of competition has two important shortcomings with respect to these different conceptions of competition. First, while Eucken (1949) mentions explicitly the idea of prevention competition, he limits the downsides of an incomplete competition to the emergence of monopolistic or oligopolistic market structures. Later authors added emphasis on the problem of rent-seeking (Böhm 1980, Streit 1992), arguing that the rules of the game of politics needed to be constrained by a constitutional order that prevents government from becoming the target of special interest groups (Vanberg 2004). Neither of these arguments provides, however, a rationale why performance competition should be the rule rather than the exception. In fact, in the traditional ordo-liberal view non-peaceful competition rather appears to be an artefact that is easily avoided by an appropriate institutional order.

Williamson (1975: 47), however, reminds us that opportunism and malfeasance are common phenomena among individuals and therefore will affect market outcomes: "Economic man is a much more subtle and devious creature than the usual self-interest seeking assumption reveals". To him, economic opportunism is "self-interest seeking with guile" (Williamson 1975: 255) or "the incomplete or distorted disclosure of information, especially to calculated efforts to mislead, distort, disguise, obfuscate, or otherwise confuse" (Williamson 1985: 47). In this neo-Hobbesian setting (Bowles 1985), the outcomes of a competitive market order are no longer clear-cut because opportunism creates transaction costs, which may distort market choices (Williamson 1989; critically, Hodgson 2004) and social welfare maximization may not succeed.

Second, the ordo-liberal concept of competition is very much in line with the traditional economic thinking about the win-win aspects of exchange and the gains from trade. These arise, however, only when competition is based on perfectly specified and

perfectly enforced property rights (Garfinkel and Skaperdas 2007). Accordingly, the task of the competitive order is then to establish appropriate rules for efficient market processes; for instance, by unambiguously assigning property rights. While this appears plausible at first glance and the implementation of these rules may indeed be feasible, the underlying assumption that market actors can only produce and trade to make a living is far from being self-evident.

Even in standard models of imperfect economic competition with a particularly large deadweight loss or a significant waste of consumer and/or producer rents, the possibility of a trade-off between production and what may be called *conflict activities* is usually excluded. Market actors neither engage in appropriation, nor do they grab the production of others nor have they to defend what they themselves have produced (Garfinkel and Skaperdas 2007). They do not even invest in conflict technologies. This is somewhat surprising as substantial parts of the economic literature on conflict relies on contest models that are also used in the rent-seeking literature (Tullock 1980, Nitzan 1994).

Modelling conflicts as a contest (Hirshleifer 1989) implies a game in which participants expend resources on arming to increase their probability of winning if conflict were actually to take place (Garfinkel and Skaperdas 2007). This "arming" can be understood within a larger economic context when investments are not productive but aim at improving a firm's relative bargaining power to win a conflict or contest in the next round. For instance, it requires investments to either become or fight a "patent troll" (i.e., a party that attempts to enforce a patent far beyond its actual value; see Rader 2011). Neither of these investments has any productive value, since the troll, seeking to extract rents from a firm, spends money on an otherwise useless patent, while the firm does everything (e.g., hiring expensive attorneys) to avoid getting the target of the troll.

Against this background, recent advances in the economic literature on conflict are a good starting point to extend the traditional ordo-liberal perspective on competition. On markets, in which non-peaceful forms of conflict co-exist with or even dominate peaceful competition, traditional outcomes of competitive processes come under scrutiny and may no longer hold. If this is the case, the policy recommendations and (normative) claims of ordo-liberalism may no longer hold or be effective. In the following, we will analyze how introducing conflict activities into a competitive market changes the market equilibrium; then, we discuss the consequences for the ordo-liberal model of a competitive market order.

Our argument will be based on a very broad concept of conflict that is compatible with many real-world situations. We are less interested in the specific micro-technology of conflict (i.e., the weaponry) than in the more general issue that market actors may invest resources into a conflict in order to increase their chance of winning the "market game". Unlike in the economics-of-conflict literature, we do not emphasize physical violence as the essence of conflict. However, the obstruction, damage, expropriation or destruction of competitors may be strategies chosen by some market actors, typically aiming at a non-market driven reallocation of existing property-rights assignments. Some of these strategies may mainly be observed in illegal markets, but it would be naïve to believe that they not to occur in regular

markets or that illegal activity (e.g., protection rackets) would not feed back into regular markets. Often, the simple threat of potentially destructive activity suffices to make market actors comply. Again, the example of a patent troll is striking because already the threat of suing a firm may make the firm accept excessive demands by the troll.

This is obviously very different from market competition in the traditional sense, in which – based on the assumption of clearly assigned property rights – scarce resources are to be allocated on consumption and production activities in the most beneficial way for society as a whole. This market competition may turn into a conflict scenario once the market actors are able to negatively affect the cost structures of their competitors or when they use excessive resources to avoid market entry by competitors. More generally, the distinction between conflict and competition boils down to the difference between bilateral, beneficial exchange on the one hand and unilaterally taking advantage of a power asymmetry in the market, where power results from threatening or actively combating a competitor. Of course, in real-world markets the line between fierce competition and mild conflict may be blurred.

Even if one would expect laws, institutions and norms to emerge to limit and shape the use of force by economic agents (Garfinkel and Skaperdas 2007), the outcomes of the competitive process will be influenced by the always-existing possibility to increase one's influence by increasing investments into conflict. In the following section, we will provide a simple model that shows that the predictions of the competitive model are no longer valid once conflict is introduced.

How to Introduce Conflict in a Simple Model of Competitive Markets

One of the simplest models of allocation and (production) efficiency in competitive markets is the *Edgeworth Box*, shown in Figure 1. The model considers two firms and two factors of production (e.g., capital and labor). In their attempt to fulfill consumers' demands, firms typically realize that the initial factor endowment is not sufficient to maximize their profits. For a given production technology, exchanging or trading production factors on a voluntary basis with another owner of these factors may help to utilize them more effectively. At some point in time, trading further factors is no longer advantageous for the firms because the profit loss from giving up one unit of the first factor equals the profit gain from getting additional units of the other factor in exchange. Graphically, the isoquants of both firms as representation of their production technologies become tangent and their marginal rates of technical substitution equalize. The contract curve represents the locus of all efficient trade outcomes and thus all possible Pareto-optimal allocations.

Under these circumstances, there is no need for government intervention because trade leads to the social welfare optimum. Starting from the initial endowment moving into the lens spanned by the isoquants of both firms increases profits of each of these firms. If at all, the role of government is to facilitate and maintain Pareto improvements and Pareto efficient allocations, i.e., processes towards and solutions on the contract curve. Hence, the government should promote voluntary and peaceful exchange and trade of goods, services and production factors by providing exchange institutions such as a market infrastructure or secure and well-defined property rights, which, in turn, reduce the transaction costs of market exchanges. As shown above, ordo-liberals favor, among other things, sound constitutional rules and effective anti-trust legislation to set an institutional framework within which social welfare can flourish.

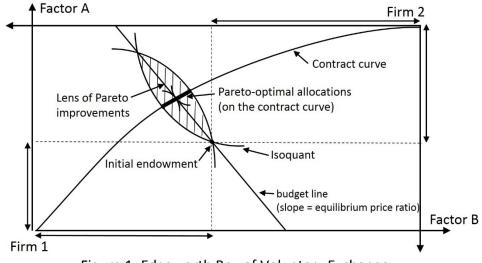


Figure 1: Edgeworth Box of Voluntary Exchange

Figure 1 represents not only a pure exchange economy, but also a competitive market once a price mechanism is introduced. For a given initial endowment, prices valuate the amount of available and tradable resources that may be used in the production process. At the same time, they determine the budget line for each firm. Only if the exchange ratio of production factors in terms of prices and marginal profits are equalized, any remaining incentive to continue trading factors disappears and total profits (and thus social welfare) are maximized. The underlying reason for this outcome is that profit-oriented firms, while competing for scarce resources, are aware of potential profit gains from trade, which they do not want to forgo.

This simple theoretical framework can be expanded by integrating conflict activities directly into the Edgeworth Box. This allows us to analyze how conflict affects the outcomes of a competitive market. The basic assumption of this approach is a *guns-vs-butter* scenario, i.e., producers can transform any endowment (or resources or abilities) into a conflict good or conflict behavior. By definition, conflict goods ("guns") are neither productive nor can they be used to fulfill consumers' demands ("butter"). Their only purpose is to secure a powerful position in a conflict or to threaten other market actors; just as the patent troll acquires a patent only for extracting rents from another firm by threatening to sue it, but not to use the patent for production purposes. Obviously, this assumes implicitly that property rights are diluted, i.e., they are not always fully attributable to one market actor.

Figure 2 shows different scenarios that may arise when conflict activities are included in the model. The figure makes the simplifying assumption that firm 1 is endowed only with factor B, while firm 2 is endowed only with factor A implying that the point of initial endowments is in V.

The first scenario is shown in Panel 2a, which corresponds to Figure 1. Although conflict investments are possible, neither of the two firms actually invests. Firms take instead the initial factor endowment as the basis for trade (here, the isoquants span the potential settlement region) and achieve a Pareto optimum with maximum total profits in point E*. In comparison, Panel 2b shows a case in which some of the initial factor endowment is transformed into conflict goods. The graph already presents the outcome of an arms race, i.e., a conflict game in which both players choose to invest into conflict activities as a dominant strategy. This interpretation results from the following logic: If firm 1 (e.g., the patent troll) gives up some units of factor B and invests these units into conflict activities, it will win all available resources, i.e., it will own both the remaining units of factor B and all units of factor A which were previously owned by firm 2. The reason for this outcome is the assumption that an exclusive investment in conflict activities on behalf of firm 1 results in an overwhelming power of firm 1 to appropriate the property rights of firm 2 for factor A. Losing everything is not a very attractive perspective for firm 2, so it will also invest in conflict goods by diverting some units of its initial endowment with factor A (e.g., by hiring an attorney instead of investing into research and development).

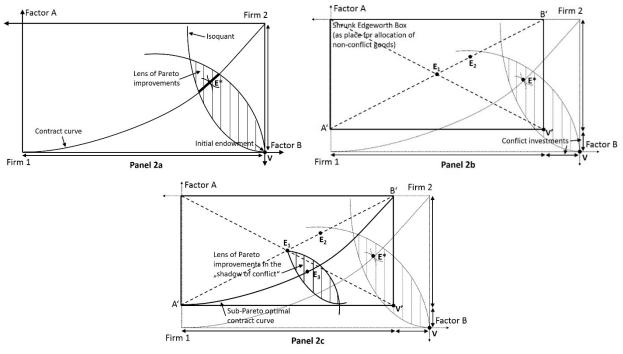


Figure 2: Conflict-Production Exchange Box

Investing into conflict if the other firm does the same is an optimal strategy because it helps to avoid a complete loss of resources. Investing if the other firm does not invest would even allow gaining additional resources. Hence, investing into conflict is the dominant strategy for both firms; however, from a welfare perspective this outcome is clearly inferior in that it represents a classic prisoner's dilemma situation. The unproductive conflict investments let the Edgeworth Box shrink, indicating that fewer resources are available for production (and consumption) purposes. This does not say, however, that there could not be winners and losers in this game, although society as a whole will lose. The dashed lines in the shrunk Edgeworth Box in Panel 2b provide a first idea of possible allocations of consumption goods depending on the actual conflict outcomes. If conflict investments lead to power equality, i.e., an equal relative force of conflict players, the midpoint E_1 of the shrunk Edgeworth Box will be reached (implicitly, we assume here that both firms value factors equally strong). Here, both firms will capture exactly the same amount of factors A and B, respectively. If, *after* conflict investments, one firm is more powerful than the other firm, it will be able to appropriate more than half of the available resources (in point E_2 , firm 1 is more powerful than firm 2). Most importantly, however, we observe that neither allocation E_1 nor E_2 corresponds to the optimal allocation E^* that would result without any conflict investments.

Panel 2c provides yet another possible outcome of competitive markets with conflict investments. Again, both firms invest into conflict leading to a shrunk Edgeworth Box. Different from the previous scenario, however, they do not decide to enter into conflict but rather to continue trading. That is, starting from a position of equal power (E_1) they trade toward E_3 . This is an impure conflict outcome called "exchange in the shadow of conflict" (Anderton et al. 1999). This outcome rests, however, on the assumption that both firms actually prefer exchange to conflict, otherwise the market outcome will be an allocation like E_2 . An alternative interpretation of this scenario is a *simultaneous conflict-exchange equilibrium* in which E_1 is the allocation that occurs after a conflict of equally powerful firms. Despite the previous open conflict, the firms realize that entering into trade is beneficial to them. In fact, this situation may even occur for a post-conflict allocation like E_2 , in which firm 1 dominated firm 2, because trade of non-conflict goods and factors remains attractive.

One can think of several extensions of this model. According to Anderton and Anderton (1997) the conflict technology plays a role. Some firms have a comparative advantage in offensive and others in defensive conflict technologies (e.g., the patent troll acts offensively, while the attacked firm responds defensively). Similarly, the asymmetric availability of conflict technologies may affect the outcomes. Finally, the timing of attacks will certainly matter to the success probability of market actors.

Regardless of the model variant under consideration, there is a basic unilateral incentive to invest in conflict goods for realizing an allocation, which is strictly preferred to pure bilateral exchange. Even if firms know that pure factor trade without any conflict investments (and without competition under the shadow of conflict) leads to the highest social welfare by the maximum sum of profits, each of them has the unilateral (i.e., non-cooperative) incentive to invest in conflict goods. In general, hence, any trade or exchange exists in the shadow of the conflict only.

What follows from this exercise is that traditional wisdoms of welfare economics and ordo-liberalism are challenged when conflict is introduced. The two welfare theorems on competitive economies, i.e., (i) any equilibrium in competitive markets is Pareto-optimal and (ii) any Pareto-optimal allocation can be sustained under competitive markets with an appropriate adjustment of initial resources, do no longer hold when conflict is introduced into

the Edgeworth Box (Anderton and Anderton 1997). The Edgeworth Box is instead endogenous and depends on the intentions of the firms to enter conflict or the fear to get involved in a conflict. In fact, there is a family of Edgeworth Boxes and only one of these boxes is Pareto-optimal, namely the one with zero conflict investments. That is, in general, one observes *sub-Pareto optimal* competitive markets, which contradict the *First Welfare Theorem* (Anderton and Anderton 1997).

The major question for any (welfare) economist is therefore how to get from sub-Pareto optimality to Pareto-optimality. At first glance, it appears reasonable to let the government provide society with, for instance, a sound protection of property rights and a governmental conflict management. More generally, one might argue that the idea of a protective state should be extended to economic policy as well. Note that in neoclassical economics it is generally assumed, that the problem of the protective state is solved, but this assumption appears doubtful. If conflict is at least partly inevitable because there is no or only an incomplete protective state when it comes to market transactions, government has to (i) foster exchange in the shadow of the conflict and (ii) implement and manage institutions in a world of simultaneous conflict and exchange activities. Assuming that the ordo-liberal agenda shares the interest in moving from a sub-optimal to an efficient allocation, one will furthermore ask how (constitutional) rules need to be designed that do not restrict the welfare-enhancing forces of competition while avoiding the negative impact of conflict on the market mechanism.

Envy-free Allocations as a Potential Constitutional Solution to Conflict in Competitive Markets

There are many reasons why conflict could occur. In psychology, conflict is assumed to follow from strong emotions, such as anger, hatred, guilt, shame, pride, regret, joy, grief, malice, indignation, jealousy, contempt, disgust, fear or love (Elster 1998). In economics, envy as one particular emotion has attracted quite a lot of attention (see, among others, Arnsperger 1994; Hirshleifer 1985; Kirchsteiger 1994; Mui 1994; Podder 1996; Varian 1974), because it can be generalized as a common feeling of individuals and groups of individuals (such as employees and managers of a firm that is being attacked by a patent troll) that is closely interrelated with concepts such as inequality and relative deprivation.¹ While Hirschman (1973) assumes relative deprivation to be identical with envy, other authors acknowledge that (minor) differences may exist (Chaudhuri 1986; Podder, 1996). Whether or not the two concepts are identical or only closely interrelated, however, does not matter to our argument. Rather, since Gurr's (1970) seminal contribution on the genesis of conflict from relative deprivation, this link is broadly accepted also in economics (e.g., Krieger and Meierrieks 2016).

Against this background, it is important to note that while envy is considered an emotion in psychology, in economics, the concept is made free of emotion by defining it in strictly behavioural terms (Podder 1996). It is assumed that the members of group *i* depict a

¹ Runciman (1966) explains relative deprivation as follows: "The magnitude of a relative deprivation is the extent of the difference between the desired situation and that of the person desiring it".

'feeling of envy' towards the members of group *j* (or a single person *j*), if they prefer to change their position, i.e., their access to a specific commodity bundle, with that of group *j* (or individual *j*). If group or individual *i* reveals a preference for a change in position with group or individual *j*, *i* is said to envy *j*. Or, putting it loosely, a distribution of goods is envy-free if every group is satisfied with the commodity bundle allotted to them, i.e., no group should (strictly) prefer the commodity bundle held by any other group to its own bundle (Arnsperger 1994). Representative of the economics literature, Varian (1974) calls the absence of envy together with Pareto optimality *fairness* and, indeed, envy-freeness has become the most relevant 'distributive companion' to the aggregative requirement of Pareto efficiency in normative economics (Arnsperger 1994). Given the relevance of envy in the economic literature and its handy interpretation, we will use envy as our example of a potential conflicttrigger in the following. Note that we assume subsequently an implicit general agreement that allocations with no envy define a fair social state from the perspective of the market participants.

The Edgeworth Box can again be used to explain this concept. As before, we will refer to firms and their isoquants, although we have to keep in mind that the actual envy is related to the group of managers and employees working in a specific firm. Graphically, we take the midpoint of the Edgeworth Box as a starting point. By definition, the midpoint is envy-neutral because both firms have exactly identical allocations of resources. For each group, we now have to identify the envy-free region by considering 'changing-places' situations. We do so by taking any two points, i.e. initial endowments, left and right of (or above and below) the midpoint of the box. For each pair of these points, it must hold that they can be connected by a straight line through the midpoint and that they have exactly the same distance to the midpoint. Furthermore, they need to lie on the same isoquant, meaning that individuals in the firms are indifferent between them. In Figure 3, G and G' fulfil these conditions. Here, G and G' lie on the same isoquant of firm 2, which implies that the endowments G and G' are in fact envy-neutral. Individuals working at firm 2 are indifferent about changing places with workers of firm 1 from G to G', or vice versa. If the exercise of identifying analogous endowment pairs is repeated, the envy-neutral curves of both firms' workers can be determined.

Note that workers of firm 2 would not mind any allocation southwest of their envyneutral curve because it would result in a position on a higher isoquant with more of both goods. The same is true for workers from firm 1 who prefer any endowment northeast of their envy-neutral curve to the curve itself. Combining these observations helps us to identify the mutually envy-free region, which is the region between the two envy-neutral curves in the lower right corner. Moving into this region is beneficial for both firms as there is no conflict potential if envy is the single cause of deviating from peaceful exchange (which we assume throughout this section). However, as one can easily recognize from the graph, most part of the mutually envy-free region is not efficient as it lies off the contract curve. As long as the initial endowment is inside the region, this is not a problem. Firms will simply start to trade until they reach the contract curve by peaceful settlement.

This has some simple implications. If we assume that envy-freeness is the precondition for peaceful exchange and if we want to move from a sub-optimal to an efficient allocation,

which is also free of conflict, then the ordo-liberal policymaker has to ensure that market exchange starts within the mutually envy-free region of Figure 3. In this case, the final market outcome will be efficient *and* free of envy. Here, the government only has to guarantee the proper functioning of the market game; beyond this, there is no need for any kind of intervention. However, since the initial endowments do not necessarily lie within this region, a modern ordo-liberal research program that includes the possibility of conflict would imply policy instruments (labelled as the "ordo-liberal agenda" in Figure 3) helping to move from outside the envy-free zone to the inside.

This is reminiscent of the *Second Theorem of Welfare Economics* which – as we already mentioned above – states that, out of all possible Pareto optimal outcomes, one can achieve any particular one by enacting a lump-sum wealth redistribution and then letting the market take over (see, e.g., Mas-Colell et al. 1995). That is, at least in theory the policy-maker will choose an appropriate lump-sum redistribution at the outset to move into the envy-free zone. The difference to the classical Theorem is, of course, that the goal of the policy-maker is now a different one. It is no longer the idea to get to a desired income distribution, but rather to ensure peaceful exchange. Note that the latter is here an allocative goal in the first place, not a distributional one.

Since the implementation of a lump-sum tax (or subsidy) is nearly impossible, however, one has to resort to distortive taxes which are second-best according to optimal-tax theory (for attempts to derive optimal envy taxes, see, e.g., Bös and Tillmann 1985; Nichimura 2003a,b). Here, the negative welfare effects of distortive taxation would be countered by positive welfare gains from avoidance of the allocative harm from conflict.

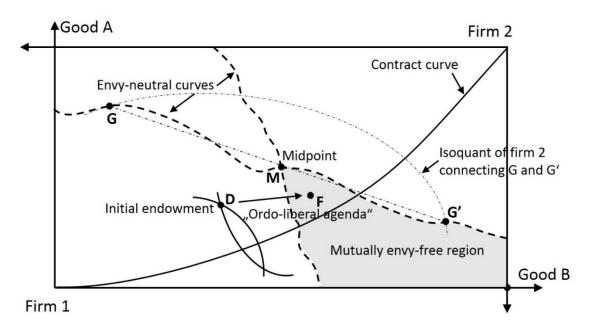


Figure 3: An ordo-liberal agenda to enter the mutually envy-free region

The New Ordo-liberal Agenda: Rebuilding the Institutional Foundations for a Peaceful Market Economy through Pre-distributional Policies

Based on the preceding considerations about envy-free allocations as a means to decrease the conflict potential in the market, we now turn to the wider question of how to facilitate further market exchange in a world of simultaneous conflict and exchange activities. Admittedly, an economy is a complex order in which it is epistemologically impossible and practically too costly to reach a situation by means of lump-sum redistribution in which the market participants' social preferences will be satisfied to a degree that any conflict investment becomes individually irrational. We might be successful with regard to envy in a narrowly defined market, but, of course, economic agents can hold all sorts of social preferences (e.g., inequality aversion, Rawlsian fairness, reciprocity, to name just a few) that may motivate conflict investments in complex market situations. Consequently, in a second-best world with transaction costs in which property rights are diluted, there will always be a certain minimal level of conflict activities that is acceptable from a social welfare perspective.

Having said this, there is still a more general implication of our previous discussion. Although it is true that redistributing initial endowments in many areas of an economy would be costly, change incentive structures and often lack the necessary knowledge on behalf of the social planner, it shifts the general logic of the market participants away from "exchange in the shadow of conflict" to "exchange in the shadow of pre-distribution".² This line of reasoning follows Hacker and Pierson (2011) in that it focuses on market reforms that encourage a more equal distribution of (economic) power before individuals freely enter into market transactions. The idea goes back to the notion of a property-owning democracy developed by Meade (1964) and philosophically extended by Rawls (1999, 2001). Conflict-laden market segments in which players have an individual incentive to strategically invest into a "struggle-type" competition now turn into segments in which "record-type" competition becomes more attractive since the players anticipate the new distributional situation, which, in turn, diminishes or cancels out returns on conflict investments in the first place.

From a welfare economic perspective, one could argue that any governmental redistribution makes individual property rights less stable or secure. Although this observation has some merit in competitive markets, it neglects the dynamic inefficiencies stemming from the constant threat of conflict activities in simultaneous conflict-exchange markets. In addition, a government interference is a pre-distributional, one-shot interference with the aim to yield an envy-free (or any other socially desired equivalent) market situation that strengthens, in particular, the market and/or bargaining power of relatively-deprived market actors at the outset.³ Such a policy enables all market participants to focus on exchange

² In general, the idea of "pre-distribution" draws attention to policies and institutions that are designed to improve the resources and opportunities of economic agents before entering the market game (e.g., through education on the individual level or lowering the market entry costs on the firm level), which, in turn, reduces the need for redistributive tax-and-transfer mechanisms or antitrust measures ex post. For a recent summary article, see Kerr (2016).

³ In their research published by the IMF, Kumhof and Rancière (2010) argue, for example, that the best way of flattening pre-tax inequalities is to raise the bargaining power of wage-earners before entering the market game.

activities in the market game since it raises their opportunity costs of conflict investments. Once the mutually envy-free allocation is reached, the government abstains from further interfering and allows the free market to define the final distributional outcome. On the contrary, if we have a situation with high conflict investments by the market participants without any pre-distributional efforts, the potential window for welfare improving market exchange gets increasingly smaller and, more importantly, the degree of property rights security deteriorates and unilateral protection measures (like lawyers, lawsuits, or preemptive safety arrangements) become more costly over time.

The crucial advantage of a pre-distributional account to conflict-laden markets is that it allows for a *rule-based solution*: On a market constitutional level, one can establish mutually advantageous rules that constrain the possible transactions to the "peaceful settlement region" (in our example: the zone of envy-freeness). Consequently, all market participants know, ex ante, the rules of the game (in particular, the range of property rights becomes common knowledge) and they can adjust their individual behavior accordingly (Buchanan 1999, 1987). If market participants know in advance that strategic behavior is limited to the envy-free choice set, incentives for investments in conflict efforts are significantly reduced if not completely eliminated. This raises utility on the individual level in that it enables economic participation and planning, and it raises potential gains from trade for firms since market instabilities are decreased and firms abstain from entering a wasteful arms race. Resources that previously had been invested in conflict activities can now be productively funneled into alternative value-generating uses (Buchanan 1999: 427). In addition, this rule-based enhancement of "record-type" competition can propagate peaceful market solutions (e.g., industry specific codes of fair conduct that rule out harmful business models and strategies including those chosen by patent trolls, or informal rules against deceptive advertising) which, in turn, reinforce the stability of the constitutional framework over time.

As a matter of course, the government has to secure the "peaceful settlement region" of the market and enforce the constitutional rules of the game through the punishment of property rights violations. However, it lies in the self-interest of the market participants to not only support and finance a property rights regime by means of an effective police force (*protection of property right*) and an independent judiciary system (*management of conflict situations*), but also to address and agree on the establishment of pre-distributional policies on the constitutional level in order to secure welfare-gains from peaceful market exchanges. Therefore, the normative benchmark for pre-distributional policies should always be the criterion of (potential) mutual agreement on constitutional rules within which peaceful market transactions are allowed to emerge freely. Consequently, market participants would stick to the rules of the game, if, on balance, over the whole sequence of discrete "plays", the pre-distributional policies serve their interests more effectively than unilateral conflict activities (Buchanan 1987: 248). This shift in the political agenda from *re*-distributive corrections of extremely unjust market results to *pre*-distributional efforts to secure a fair, i.e., envy-free, competition, serves to facilitate agreement on the general rules of the game and

may remove conflicts among individuals or firms in strategic actions in the game itself.⁴ In this respect, they support the ordo-liberal concept of the competitive order even in a setting with potential conflict activities.

Conclusions

Very early on in the intellectual history of ordo-liberalism, Eucken argues in favor of *performance competition* and against *prevention competition* ("hand-to-hand combat"); yet, proponents of the Ordo-liberal School have never fully paid attention to the implications of this important distinction. Ordo-liberals have mainly focused their scholarly attention on the necessity to protect the competitive order against the emergence of monopolistic or oligopolistic market structures and against rent-seeking activities in the political arena. In doing so, ordo-liberals have long neglected the possibility that a non-peaceful struggle-type competition might be the rule rather than the exception, even in competitively organized markets.

In fact, recent literature in conflict economics emphasizes that competition can trigger conflict rather than having an appeasing effect: market actors often expend resources on arming to increase their probability of sustaining market shares or simply to damage a more powerful competitor. These *conflict activities* are not productive but rather resource wasting. On markets, in which conflicts co-exist with or even dominate peaceful competition, classic ordo-liberal policy recommendations, such as antitrust laws to secure competition or property rights protection to stimulate investments, may no longer be sufficient or lose their effectiveness; the outcome of the market will be "in the shadow of conflict", i.e., it will be influenced by the ever-existing threat to lose market shares to a competitor in the arms race including a generally too high level of (unproductive) investments in conflict activities, which lower overall welfare.

In order to grasp this observation theoretically, we have introduced conflict into a simple Edgeworth Box model of competitive markets to show how the market equilibrium changes if we allow for a struggle-type competition. In such a competition, investing into conflict is the dominant strategy for all market actors, yet, from a welfare perspective this outcome is clearly inferior since fewer resources are available for production and consumption purposes. We then discussed envy and its link to relative deprivation as a potential conflict-trigger in markets. Based on the Edgeworth Box model of competitive markets, we identified the envy-free market segment as a potential solution to struggle-type market situations.

Given these theoretical insights, we advocated *pre-distributional policies*, i.e., measures that increase the economic opportunities of actors on markets before entering into

⁴ Buchanan (1987: 248) gives the following explanation: "To the extent that the individual reckons that a constitutional rule will remain applicable over a long sequence of periods, with many in-period choices to be made, he is necessarily placed behind a partial 'veil of uncertainty' concerning the effects of any rule on his own predicted interests. Choice among rules will, therefore, tend to be based on generalizable criteria of fairness, making agreement more likely to occur than when separable interests are more easily identifiable."

bilateral market transactions, as a way to decrease conflict potential and enhance peaceful market exchange. In general, the normative discussion has been rather abstract. Examples for pre-distributional policies might range from educational minimum standards on the individual level to decreasing disparities in access to infrastructure or repealing market-entry barriers for firms. The crucial advantage of such measures is their *rule-based* character: one can establish mutually advantageous rules on the market-constituting stage that constrain the subsequent transactions on the market to the "peaceful settlement regions".

Admittedly, it might be difficult to find a clear-cut distinction between peaceful and conflict-laden competition. However, acknowledging the conflict aspect of competition and the institutional challenge that comes with it can spur the research agenda of a new ordoliberal program.

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