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The mirage of mark-to-market: reconciling entrepreneurial discovery with distributive justice

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Should capital be taxed like income? Are typical tax treatments of capital gains unjust? How should normative aspirations respond to the beneficial social role of market economies? The central claim of this paper is that the normative consensus over capital gains taxation should not turn into an overall consensus over the mark-to-market ideal, the systematic taxation of all capital assets. Our critique of the mark-to-market approach is derived from conceptual and practical considerations: a thorough application of taxation on market values is premised on a mistaken notion of market activity, and its overall application would deter much of the entrepreneurship and competition that fosters the experimentation, innovation and welfare improvement that is characteristic of commercial societies. Tax policy successfully aiming at distributive justice must account for these features of a market economy.

Our argument develops as follows. In part one, we introduce the new fiscal philosophy and conventional tax theory including the broad support for the mark-to-market approach and the parallel critique of the realization approach. In part two, we show how the ideal of taxing persons and firms on the basis of market prices is inspired by a neoclassical economic model that assumes prices reflect an objective optimal value in a competitive equilibrium. In part three, we introduce an alternative understanding of the market as procedural rather than static, and anti-perfectionist rather than perfectionist. On this account, markets are dynamic processes whereby entrepreneurial actions lead to improvements in the provision of goods and services. Equilibria are not perfect states and the equilibrating tendencies of the market lie not in abstract forces but can be traced back to individual actions, whereby entrepreneurs either beat the price, or create a new product or service. In part four, we show how this understanding of the market as a discovery procedure aligns with a realization account of economic profit. In part five we

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conception of market activity is not without consequence, leading to critical problems with assessing tax liabilities while deterring beneficial economic activity. In part six, we return to the core of the problem and pinpoint the alternative avenues that could form the basis of a redistributive tax agenda.

i. The mark-to-market ideal and the scholarly rejection of the realization approach

Tax looms large in contemporary political philosophy. Until a few years ago, it was mostly the domain of specialist lawyers. Now the technicalities no longer deter broader academic interest. Piketty (2014: 493) states that taxation is ‘preeminently a political and philosophical issue, perhaps the most important of all political issues’, and normative theorists have taken up the gauntlet. Combining insights about justice, redistribution, human rights, sovereignty and constitutionalism, political philosophers increasingly scrutinize how theoretical standpoints play out in fiscal practice, and how normative perspectives can inform practical fiscal debates.

Dietsch (2015) and Dietsch and Rixen (2014) for example, uses both empirical and normative analysis of tax competition to establish the principles of tax justice, and make an argument for the establishment of an International Tax Organization to enforce them. Van Apeldoorn (2018) tackles the unequal distribution of fiscal sovereignty, and connects this with rising income inequality between countries. While it is important that nation states have the freedom to determine their own fiscal policies, van Apeldoorn underlines that `an internationalist conception of justice` requires that the tax sovereignty be distributed equal. Wollner (2014) elaborates how an international transaction tax could help the financial markets align with requirements of justice. O’Neill (2009, 2012, 2017) takes an explicit cue from Rawls (1999, 2001b), to attack the distributive tendencies of free markets, and revives the idea of a ‘property-owning democracy’ (a society that permits private property but adjusts the underlying structure of ownership to prevent the class divisions characterizing capitalism). In order to address the ‘underlying patterns of ownership in society’ and ‘restructure the economic game from the very start’, O’Neill proposes an ambitious tax agenda targeting wealth and capital gains.

This century’s pioneers of ‘fiscal philosophy’, Murphy and Nagel (2002) critique the popular belief that any taxes can violate property rights even in principle. One of the core myths of
ownership is the existence of any ‘property rights antecedent to the tax structure’ (Murphy and Nagel, 2002: 74), hence – our only legitimate claim is on income net of taxes (see also 32-33). More recently, Robeyns’ theory of ‘limitarianism’ (2017: 1) states that it is ‘morally objectionable to be rich,’ (2017: 5) and we have a moral duty not to have ‘too much’. Justice, for Robeyns, ‘equals a top marginal taxation rate of 100%’ (2017: 35) on everything we own or gain above a specific level. Melkevik (2017) tries to make a classical liberal case for inheritance taxes, as argues that ‘dead taxes’ are essential to keep a market society competitive and socially mobile. Vallentyne (2012) and later Delmotte and Verplaetse (2017) investigate how respectively the right to one's holdings (i.e. private property) or one own body and mind (i.e. self-ownership) does not necessarily restrict the range of acceptable fiscal bases for governments, and renders income taxation legitimate.

During the last half of the 20th century, philosophers aimed to ‘get the principles right’. The work of contemporary ‘fiscal philosophers’ is motivated by a practical consideration: the increasing wealth gap, the difficulty of the welfare state to finance itself and the need to – as Peter Dietsch puts it – ‘catch capital’. Writing against the background observations depicted by Piketty, most policy-oriented philosophers and economists in the last decade have engaged in a normative case for capital taxation. Taxation of capital income has become an important pivot in the general tax justice literature. Whether leaning on welfare maximization (Bankman and Shaviro, 2015: 505; Diamond and Saez, 2011: 165–190; Mirrlees et al., 2011: 331–359; Wijtvl, 2010: 642); justice (O’Neill, 2017) or simply the value of equality (Piketty, 2014), scholars criticize the supposed ‘preferential treatment’ of capital income, and aim for increased taxation of capital gains.

While sympathetic to the normative goals of the new fiscal philosophy, this article digs deeper into the practicalities of wealth taxation. Philosophers often borrow concepts from economics to build normative arguments. However, standard economics does not always deliver the final answer. What counts as wealth, how we determine consumption, and what is an exchange, are in themselves contested concepts, demanding thorough analysis. This paper asks ‘when does capital yield income? When do stocks, bonds, shares, pensions, annuities, intangible assets, and real estate yield an income?’

On the one hand, one’s assets can be taxed according to the annual increase in market value. The mark-to-market approach conceptualizes income as the increase in market value of a specific asset
between two moments in time. On the other hand, the taxation of capital can be imposed on the income that *one realizes* from one’s assets—the monetary benefits received in exchange for a transfer of property. Hence, the realization approach presumes that income is the difference between the costs and profits of an occurring exchange. Economists quasi-unanimously decry the former practice as mirroring an incorrect conception of price theory. Importantly, the realization approach is, at best, a “necessary evil accepted on pragmatic grounds”. Concentrating on the normative end of the discussion and on policy prescriptions, normative theorists ‘take over standard economist’ opinion – hence their case for capital taxation has turned into a case for the *mark-to-market approach*: income is constituted by an increase in market value over time (see Bankman and Shaviro, 2015: 505, Wijtvliet, 2014: 642).

A simple stylized example (which we will return to in the following sections) can help illustrate the difference between the realization and mark-to-market approaches. Imagine two family firms, the Cohens and the Coopers, who each own an orange grove in Orange County.³ Selling orange juice is profitable in Orange County and due to the increased popularity of oranges and the firms that harvest them, potential buyers are currently willing to give $500,000 for either family’s grove. Two years ago, this was only $300,000. Two viewpoints are possible regarding the economic status of this $200,000.

Most current tax codes, the US Supreme Court (Eisner v. Macomber, Helvering v. Bruun, Inaja Land Co. v. Commissioner), as well as people’s common intuitions, support the realization approach: income is the receipt—or at least a legal agreement over the receipt—of a tangible benefit (Kwall, 2011; Schenk, 2004: 377). Income is what someone can get their hands on. Consequently, one should only be taxed when actually receiving contemporaneous benefits from a sale or exchange of property, or at least agreeing to such a receipt. If other firms merely offer money, that does not constitute income. Income flows from accepting that money.

In contrast, most taxation theory defines income as the sum of (1) the market value of rights exercised in consumption, and (2) the change in the value of the store of property rights between the beginning and end of the period in question. This is the ‘Haig-Simons’ concept of income (see Haig, 1921: 27; Simons, 1938: 49–50). This latter perspective on income includes the accretion of

³ This example is thematically inspired by Kirzner (1978: 18).
capital, and it consequently implies authorities could tax any increase in the market value of one’s assets, irrespective of the occurrence of a sale or exchange (Scarborough, 1994: 1031–49; Schenk, 1995: 571–642; Shoven and Taubman, 1980: 211–13; Shuldiner, 1992: 781–93). Following this definition, scholars working in the field of income taxation embrace the mark-to-market approach as an ideal assessment method (Brown, 1996; Shakow, 1986). Whether or not one monetizes an increased value of the orange grove by $200,000, is of no importance to the ideal income tax. As income occurs with accretion, taxation merely demands an increase in market value, hence the $200,000 counts as income.

Tax theorists often argue that the continued application of the realization principle in existing tax codes is ‘the basic defect’ of income taxation, and scholars rarely ascribe it any normative foundation (Andrews, 1983: 278; Brannon, 1986; McCaffery, 2005: 889). Vilified for reasons of both equity and efficiency, the ‘Achilles’ heel of the income tax’ even led a group of tax scholars to support a shift in the tax base (Shaviro, 2004; Weisbach and Bankman, 2007). Suppose that the Cohens elect to keep their grove but the Coopers agree to sell theirs. From the conventional mark-to-market perspective, an income occurs for both businesses, yet only the Coopers who actually act on this increased price will face tax incidence. Hence, a great many scholars criticize the ‘deferral’ of the taxation of economic gains until realization, for creating substantial investment distortions and inefficiencies (Brown, 1996: 1559; Cunningham and Schenk, 1992; Halperin, 1997; Land, 1996; Schizer, 1998; Weisbach, 1999). So the realization approach fails to treat bona fide tax payers equally (by only taxing the ones who react to a price change), which we could call an ‘objective distortion’.

Linked to ‘objective distortions’, the realization principle also supposedly undermines traditional conceptions of equity. It treats different sources of income in different ways (Kwall, 2011: 93). If the whole economic advantage of an asset is reflected by the market value, a realization-based tax neglects vital increases in individual welfare. Deferring taxation until receipt appears to be a tax benefit in favor of capital (Engler and Knoll, 2003). Failure to tax capital as it fluctuates primarily benefits those whose assets contain capital, increasing economic inequality (Kwall, 2011: 93).

ii. Mark-to-market as an application of neoclassical economics
When we look at a tennis game many different things are happening. The coach is gesticulating, the public is expressing support (or the opposite), the players are moving constantly, and the referee is ready to judge events on the line. Yet both players and spectators are trained to focus primarily on the movement of the ball. An economy consists of countless unobservable streams, patterns, actors, exchanges and nuisances. Between the various yardsticks one can discern within the complexity of human society, tax theorists have promoted the price as something like the tennis ball to follow. Once one sees the price as the gold standard for objective assessment of value, this gives rise to the various objections against deferring taxation until realization. From the perspective of the mark-to-market approach the only point to follow are the fluctuations in market prices. Any tax that fails to treat two equal fluctuations in market values equally is problematic.

Before deciding how to tax income, we need to know where this focus on price comes from. Why should we equate the price in an economy to something like the ball in a tennis game? What are the deeper reasons for employing the market price as the yardstick, rather than for instance individual exchanges? The answer is that prices, on a neo-classical account, represent ‘objective’ values within a perfectly competitive market.

Neoclassical economics developed in an era where social scientists drew much inspiration from the natural sciences. Over the 18th and 19th century, physicists and chemists transformed observations about natural forces into fixed results – predictable outcomes found in the lab, and comprehensible through mathematical formulas. Observing a welfare enhancing role for markets within human societies, and ambitious to find such ‘natural laws’ in human behavior, neoclassical economists tried to establish the optimizing role of markets in ways that could be explained in two-dimensional sketches on blackboards (Coase, 2004: 19).

Rather than describing what market forces do within individual situations, these scholars were more interested in overarching ‘laws’ of an economy. The former gave rise to the conceptualization of an economy as a general equilibrium; that is a simultaneous systematic reconciliation of all individual plans for production, buying, selling and consumption in a set of overlapping fully competitive markets (Hicks, 2001: 60; Samuelson, 1947: 8). On the assumption that markets are perfectly competitive because they are populated by rationally optimizing self-interested actors with complete shared information, economists like Walras (2010), Marshall (1920), Hicks (2001),
Arrow and Debreu (1954) were able to “explain” why demand and supply will meet each other at an optimal point (Mestmäcker, 2007: 9). Indeed, the ‘wonder of the market’, within a world of complete information, is that the impersonal forces of supply and demand ‘molds’ all that scattered data into a point mass: the price (Bourdreaux, 1994: 54). This equilibrium – the point on the blackboard - represents the situation in which goods and services are allocated to their most valid use (Altson et al., 1996; Posner, 2001: 98). In equilibrium, competitive prices will reflect their marginal products, and be adjusted to the amount of resources the marginal buyer is willing to allocate to secure a good (Gaus, 2012: 89).

This model of the market is both perfect and static. It is perfect in the sense markets are expected to lead to optimal results, where consumer preferences are satisfied in the most efficient way possible (Mestmäcker, 2007: 12). It is static because markets turn into equilibria. In the same way one can specify a gravity point for a physical object, the economic question is to appoint the steady point where all forces converge (Wagner, 2016: 36). The neoclassical lens uses impersonal forces to explain economics, abstracting individual agents and their activity. Conversely, it personalizes ‘the market’ itself as a single unique agent, that works out how to allocate given resources to a range of ends in the most efficient way possible (Buchanan, 1964; Evans, 2010: 5; Fuller, 1978; Steele, 1992: 90).

Due to the influence of dominant neoclassical models, tax lawyers looking at economies focus on the price for any given good or service. ‘Income is simply the increase in value for a stock of wealth’ (Shakow and Shuldiner, 2000: 500). Once the price for an orange grove has gone up, and capital income occurred, why wait until a family actually sells it? Indeed, tax scholars’ focal point is the price, deferring taxation until some exchange occurs turns into a ‘subsidy’ (Schizer, 1998: 1594). The neoclassical spillovers within tax theory are so apparent that many tax theorists even want to apply the price, not only for the valuation of economic capital, but also to tax biological capital, or natural talents. Confident about the strength of the price-signal, some tax lawyers see even ‘talent taxes’ rather than ‘income realized from talent’ as the ideal benchmark (Kaplow, 2011; Logue and Selmrod, 2008; Mankiw and Weinzierl, 2010; Shaviro, 2000; Stark, 2005; Zelenak, 2006). If $10,000 a month for someone’s legal services is the objective point where everyone’s

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4 While temporary deviations from general equilibrium are expected, they are atypical, produced by exogenous shifts (or shocks) in supply and demand.
interests are served best from a welfare perspective, why should the state tax her at less once she decides to go against the equilibrium and write poetry? Indeed, the static and perfectionist idea of markets explains the price-fetish, and thus ‘the strong consensus in the literature that a normative income tax would tax changes in wealth as they accrue rather than as realized’ (Schenk, 2004: 355).

Despite the strong rejection of a principled defense of the realization principle, many tax scholars do grant it some pragmatic support (Engler, 2003; Heen, 1994; Land, 1996). As Robert Haig (1921: 65) asserts, the realization principle is ‘merely a concession made to the exigencies of a given situation’. Two reasons in support of this ‘rule of convenience’ are advanced (Schenk, 2004: 358). First, the realization principle is deemed necessary because a tax on an increase in value without realization raises liquidity problems. Under mark-to-market, the taxable event (the passage of a year and the increase in value) does not produce cash to pay it (Kwall, 2011: 98). Thus taxes on accrued market values force some taxpayers to sell their assets or to borrow money (Brown, 1996: 1560). This process also requires an annual valuation of all personal assets. Absence any actual receipt, tax administrators need to assess—and prove—the precise net value of any gains. Tax scholars recognize the difficulty and cost to authorities of monitoring the market value of everyone’s assets on an annual basis (Schizer, 1998: 1594; Schenk, 2004: 630). Additionally, a market assessment might be difficult for some goods and might lead to much dispute with the tax authorities (Repetti, 2000: 612). As described by Mirrlees et al (2011: 347):

…many forms of wealth are difficult or impractical to value, from personal effects and durable goods to future pension rights—not to mention ‘human capital’. These are very serious practical difficulties.

While the realization principle lingers on in most parts of our income tax systems, tax theorists are convinced the abovementioned challenges are surmountable (Schenk, 2004). Despite to above ‘concessions’ to the reality of capital taxation, researchers nonetheless plead for a prudent shift towards market assessment. Scholars try to convince policymakers that the taxation of value fluctuations would disturb taxpayers’ affairs less than the liquidity argument assumes (Schenk, 2004: 360-436). Proponents of the mark-to-market approach believe that for most assets a stable, established market price can be detected, and the issue is less insurmountable than previously
assumed (Schenk, 2004: 365–370; Schmidde, 2009). Shakow and Shuldinger (2000: 529) estimated as long ago as 2000 that valuation problems would only arise for 7.5% of the capital assets due to the increased competitiveness and stability of contemporary market conditions.

iii. The market as discovery process

The neoclassical model has its strengths both in an explanatory sense (why are markets efficient), and an educative sense (how to give an initial frame that students understand). That said, all models have limits (Bourdreaux, 2017: 282). As reality is too complex for the human mind, we look through the lenses that help us see what we need to see to achieve our goals. Different lenses highlight different things. Markets lead to static and perfect states from the outsider view that models them on a blackboard. In reality “the market” is only a metaphor, and there is no unitary agent. What is conceived as impersonal is ultimately constituted by individual action.

The more complex reality is one of millions of persons with bounded rationality pursuing their ends in the face of uncertainty and ignorance (O’Driscoll and Rizzo, 2015). No single one of them has the same knowledge nor is perfectly rational. On this account, the market economy is not best represented as a single agent allocating resources to various ends but as a spontaneous order made up by millions of individuals pursuing their own ends within a framework of rules and rights. While acting separately, these agents collectively produce aggregate social outcomes (D’Amico, 2015; Menger, 1985). Actors do not co-ordinate on the basis of given data alone. They must generate the information necessary for widespread economic co-operation through trial and error learning (Pennington, 2011: 22). The results of previous successful attempts at co-ordination are reflected in summary in the form of prices, through which relevant action-guiding information is dispersed throughout society. In this sense, neither the ends nor the means of economic improvement are known prior to attempts at social cooperation (Boettke, 2014: 236; Cowen, 2017).

One way of understanding the neoclassical view in a more realistic way is to suggest that it models the idealized ‘end-states’ of markets. Because of this purpose, it abstracts away the actual processes that drive market results. When discussing neoclassical models, Hayek (1948: 45) argues:

In the usual presentations of equilibrium analysis it is generally made to appear as if these questions of *how the equilibrium comes about* were solved. But, if we look closer, it soon
becomes evident that these apparent demonstrations amount to no more than the apparent proof of what is already assumed.

The neoclassic model commences the economic exercise at a point where the economic process has already been completed. In equilibrium-sketch:

.. the outcome is confused with the process that leads to the outcome. Human action and choices are squeezed from the model, and hence, from the economist notion of price competition. (Bourdreaux, 1994: 54)

The analysis of the market we use here aims to go back to reality, the circumstances where millions of persons with limited knowledge engage in millions of interpersonal exchanges. The model that shows how a seemingly unitary agent allocates goods to their most valid use is one way of understanding why markets lead to good outcomes. However, it does not show how these outcomes actually arise. Traditional neoclassical models portray entrepreneurs as passive recipients of consumer-information (Bourdreaux, 2017: 284). In equilibrium, the market process crunches consumer information to produce a single number – the price – with the result that entrepreneurs are merely the servants of fixed consumer preferences (Stigler, 1987: 12). Indeed, within perfect markets, entrepreneurs typically have no influence on the price or products (Bourdreaux, 1994: 54). Once we drop the idealized ‘end-state’ perspective, and look at how people actually collaborate, the importance of entrepreneurial activity becomes clearer. Markets are ways of “becoming”, procedures that will often lead, not to perfect, but at least to better states of wellbeing.

In the traditional view, entrepreneurs vanish in the model and function as pure ‘price-takers’. On a procedural account, the emergence and alteration of prices and products can only be traced back to entrepreneurial actions and choices. Under competitive conditions, entrepreneurs are incentivized to be alert to unseized opportunities. Looking for strategies to beat their competitors, entrepreneurs are not always following given market practices; they are disrupting them. They go against the market practice at a given moment in time, and they will do so while making use of their unique knowledge. Entrepreneurial initiative can take various forms. First, entrepreneurs can act as price breakers, trying to find ways of closing a gap between a given price for a particular good and the underlying cost, as they see it, of providing it (Kirzner, 1997, 2013). For instance, they might discover a given resource can be purchased cheaper, or they can decide to employ more
specialized labor forces. Entrepreneurs take on this role of acting against, or in disagreement with, the publicized market price of a particular good or service (Kirzner, 1978: 11). Furthermore, entrepreneurs can contest the market, not only by reducing the price but by improving the product. Companies act as *product-innovators* when they bring modified or new products to the market that turn out to serve consumer preferences better. They may enhance the quality by modifying the composition of the product (consider, for example, the improved albeit more expensive coffee machines now popular in homes and offices). The dynamic and anti-perfectionist view of markets, where entrepreneurs are active disruptors rather than passive recipients, becomes all the more apparent once we drop the assumption of perfectly informed agents. It is precisely because economic knowledge (e.g. regarding a specific resource shortages or supply gluts, or regarding the existence of a precious mineral on land previously considered empty of resources) is unequally spread, that competition actually takes place. Entrepreneurs employ this kind of know-how, expertise and coincidental facts that their competitor does not have, to produce new or cheaper goods and services.

Hence, markets are neither perfect nor static. Due to the imperfect information for both consumers and producers, there is no reason to believe that all changes within the market would be welfare enhancing. Discovery can be driven by miscalculation and can lead to disappointment. Equally, there is no objective point where markets lead to, and any given outcome will itself be open to novel entrepreneurial challenges. What a market process account points out is that equilibrium theorizing is limited because the assumptions of competitive equilibrium do not exist or persist by stipulation. They are only ‘approached’ in certain specific institutional settings (Boettke, 2014: 237). The reason we can speak of an equilibrium is not because of the given existence of such a point, but as the effect of systematic entrepreneurial efforts that steer markets in the direction of such a point. Whereas traditional economics focusses on a presumed ‘equilibrium’, our account highlights the genuine *equilibrating activities* that are driving the process.

iv. **The discovery process and profit realization**

Let’s go back to Orange County. The Cohens act according to the dominant business model and grow oranges which they then sell to juice producers. The Coopers decide to engage in a novel form of orange-juice production. Introducing what they expect to be a more efficient procedure,
the Coopers engage some engineers that design a system whereby roving machines harvest the oranges and immediately extract their juice. This way they generate the end-product immediately. For one year, 2017, the family has no harvest as they invest their resources in the transition of the firm. The Coopers are *price-breakers*: they try to minimize the costs to create a specific product.

But will this experiment survive, and will the Coopers alter the landscape of other juice providers? There is only one way to know. Year by year the Coopers discover whether consumers are up for the new product. Whether the Coopers’ experiment was successful will reveal itself through the specific exchanges where consumers decide to buy the juice, perhaps to buy at a premium if it tastes fresher than the alternatives, or to stick to the conventional juice if they prefer that taste. The only way for entrepreneurs to know whether they have ‘beaten’ the market is through *the realization of profits* as a result of their venture:

> the price system is not “automatic”; it functions only as the expression of human actions. In particular the price system is an expression of entrepreneurial decisions consciously planned and executed. Entrepreneurial decisions are made with the purpose of winning profits (Kirzner, 2011: 44)

Through this procedural lens, *effective exchanges* are more important than general market prices. As the individual entrepreneurial efforts (e.g. to ‘beat’ the market) enter the model, the relevant ‘ball’ to follow is not a general price but the *effective success* of individual entrepreneurial efforts. The extent of success can only be observed within the exchange of the commercial good or service, i.e. “realization”. This event signals whether the new or cheaper orange juice is preferred by costumers or whether alternative activities (for instance: selling harvested oranges in bulk as the Cohens still do) are more commercially viable. The importance of realization is that it reveals whether a firm succeeds with a more beneficial technique, product or service within the market. The value of the realization principle is it serves as the *litmus test* of the discovery process. Just as one does not tax product developers on the average income of a product developer, one cannot tax firms on the general market price for their assets that are being put to particular use.

On a procedural account, terms like ‘income’ and ‘profit’ only emerge from separate entrepreneurial efforts. The reason we actually have things like income and profit is because entrepreneurs have the liberty and incentive to compete for the rewards of consumers (Kirzner,
These rewards are only distributed at the end of the race, when consumers decide to buy a product, or not. Hence income embodies the unpredictable outcome of a discovery procedure established by the decisions of consumers to exchange a product for money. So the realization event as the contractual confirmation of a certain monetary benefit is more significant than the point in time when one ‘effectuates one’s prior economic income’ (i.e. when an asset merely increases in value) (Brown, 1996; Kwall, 2011: 80; Shakow, 1986); it is the economically decisive *finishing line*, where consumers gauge whether individual entrepreneurial actually discovered something worthwhile.

v. The consequences of mark-to-market

A realization approach to profit maps neatly into an analysis of the market as a discovery process. This is why realization is conceptually important for evaluating decisions taken in a market economy. However, this remains a *positive argument*, pointing at the compatibility of the realization approach and a realistic image of markets. To be complete, we must address what problems arise if governments nevertheless actually tax according to the supposed ‘market value’. Theorists, after all, are aware of valuation problems, yet, as they claim, for most markets fixed prices can be observed. Importantly, our argument is not oriented only towards the situation where the market price cannot be observed, but rather to situations where there is a market price. So what kind of practical problems are there for using what one generally could get paid for an asset as a basis for tax liability? In other words: what problems emerge when fiscal policy-makers ignore the role of entrepreneurs and persist in the mark-to-market approach?

Imagine Orange County’s Cooper family *does* get taxed on the basis of the mark-to-market approach. Given the profitable activity of selling orange juice, the market value of their firm rises to $500,000 in two years. A mark-to-market approach taxes the accretion of the value of capital, hence, this would assume a profit of $100,000 in 2017. Two specific problems can be identified. First, as the Coopers experiment with some new technology, the farm does not realize any profits in 2017. This means that, while the firm is on its way to *beating* the market, it gets taxed *in conformity* with it. Second, imagine that in 2018, the expected profits do not materialize as expected because the different taste generated by the new technique fails to satisfy consumers. This means that, while the firm has no income, because the experiment did not work, it still has to pay taxes as if it did. So while the firm *lost* the competition in the market, it gets taxed as if it *won*
the race. So a double problem emerges. First, periods of transition and investment are assumed to have already generated profits. Second, failed experiments are treated as successes. When discovery attempts turn out badly, firms are ‘punished’ for their experiments by being liable for general market profits.

We see that the employment of an incorrect model, is not without consequence. Once policy proposals start to build upon that model, they are inclined to generate unsound prescriptions. The neoclassical tendency to ‘think away’ the role of entrepreneurs in altering the price or establishing new products, leads to a tax proposal that ignores and deters the entrepreneurial experiments which are conducive to bringing the market closer to the theorized equilibrium. Taxing entrepreneurs alongside general market values *en gros* motivates them to follow the given production processes and techniques. On a neoclassical account, this is no problem: markets are assumed to ‘be’ in equilibrium before taxation kicks in. On the dynamic account expressed here, this policy will prevent the occurrence of yet unknown voluntary exchanges, conducive for societies to ‘discover’ movements towards an equilibrium. The irony is that by treating the market as a perfect equilibrium, the mark-to-market approach hinders the kind of innovation and disruption that is conducive for having an outcome that at least tends towards equilibrium in the first place. The general observation that an automatic application of market prices is hostile to the kind of spontaneous actions that make up the essence of markets, re-occur when focusing on how we would put the mechanism into practice. To illustrate this, we discuss a couple of policy-oriented applications hereunder.

**a. An exemption for experiments**

The previous worry might be responded by creating tax exemptions for the experiments, leaving the mark-to-market approach applicable to the ‘market-conformists’. Various reasons suggest this is not a viable solution. First of all there is no real ‘list’ of challengers. There is no way the legislator can *a priori* conceive of those players who will alter the market structure. While it is certainly true that we can conceive of specific disruptors, which innovative products (e.g. Netflix) or cost reductions (e.g. Amazon) have altered the economic landscape, the legislator is unable to make an exclusive list of these players or sectors. The very essence of innovation and competition entails that, at some point, only the respective entrepreneurs are aware of their innovative
intentions. Actually, for the experiment to make a chance, it is crucial that the wider public - such as competitors, consumers and governments – are unaware of the planned experiments and the unique knowledge that drives it. Hence the nature of entrepreneurship undercuts fiscal governance of innovative experiments as this would require centralized knowledge that is contrary to the spontaneous, locally situated and personal information that drives the process. Additionally, not only would such ‘list’ undermine the market process, secondly, there no clear cut distinction between disruptors and conformists. Even price-takers will try novel ways of advertising or will experiment with a new way to offer goods and services. In other terms: at the margin, every player is also a challenger.

b. Cost subjectivity

Once we recognize the role of subjective choice in entrepreneurial action and market discovery, the whole idea of capital valuation according to general ‘market values’ becomes shaky. The reason is that focusing on the supposed ‘market price’ obstructs seeing the rest of the picture, that different individuals are making various subjective assessments that will often not align with the type of behavior expressed in a price. While a market price is an interesting macro-economic aggregate, it cannot always serve to describe the individual level, which is, after all, the locus of tax liability. When it comes to employment of an asset or not, goods and services have subjective costs associated with their creation alongside objective factors such as physical resources that must be expended as part of the process of production. They include extra-economic costs related to production such as the discomfort and unease associated with work, as well as things like the experience of travel to and from work. It also includes the opportunity costs of foregoing alternative courses of action such as employment in some other form, leisure or domestic production. Before any realization-event, profits are not known because these costs are still being balanced.

To illustrate this, let’s return to Orange County once again. Because of the influx of orange farmers the land in the county increases in value. This means that for other companies, for instance the Atwoods’ family restaurant, the neoclassical lens ‘observes’ a rise in the ‘market value’ of the land underneath their premises. The Atwoods, however, do not respond to the market price, and do not monetize the increased value of their property. The reason is because they have other plans (such
as maintaining their restaurant), and are attached emotionally and socially to their current projects. In other terms the sale has huge subjective costs. As a matter of fact, the sale has such subjective costs that this exchange for these entrepreneurs is as such not profitable. Taxing them on the action they did not undertake, fails to take the subjective costs of such a decision seriously. The only way to find out whether the general and impersonal forces of the market also yield profits for them is when they exchange their assets for money, i.e. realization.

vi. Redistribution via a broadening of the tax base and mark-to-market taxation of financial products

How can we reconcile an appreciation of the market with tacking the growing wealth inequality that motivates the new fiscal philosophy? Inequality can take forms that are contrary to principles of justice, but that in itself, does not ground corrective measures that either violate other principles of justice (e.g. basic human rights or the principle of equal treatment), or are hostile to minimally functioning markets. The search for tax fairness cannot be secluded from the general positions in political philosophy, for instance the appreciation of basic rights or the idea of society as a mutually advantageous cooperative venture that gets derived from social contract theory (Rawls, 2001a: 51; Brennan and Buchanan, 2000: 35). The former generates the quest for legal institutions that are not welfare destructive and which render society as a beneficial proposal for its constituents (Buchanan and Congleton, 2003: 18). For practical reasons, a full blown mark-to-market approach fails this test as it deters and penalizes the innovation and experimentation that are constitutive of commercial society. Supplementing the emergent debate, and taking cues from the legal literature, we now offer some alternative approaches to address the increasing wealth gap, the difficulty of the welfare state to finance itself and the need to catch capital. We see the following measures as potentials for a redistributive tax agenda.

First of all we see the limits of our approach. There is a point to be made for an overall mark-to-market approach: it would no doubt be a more effective way to catch capital (Schenk, 2004; Schmidde, 2009; Shakow and Shuldiner, 2000). The realization approach has downsides. It leaves tax payers with sensible power over their tax base and opens the door for the strategic trading and timing of asset dispositions, portfolio adjustments, and debt-financed consumption (Elkins, 2010;
Gergen, 1994; Scholes, 2009; Bankman and Shaviro, 2015). These reduce the effective tax rate on capital-owners, and fail ‘to reach the propertied classes’ (McCaffery, 2005: 888). A deeper understanding of the epistemic foundations of the realization approach as offered here, can nonetheless be employed to equally point at its limits. Various goods are immune to our considerations, in the sense that they are not, or substantially less subject to entrepreneurial creativity. Stock in publically traded company is a clear example of a good that is always ‘in the market’. These are not goods subject to being employed in manners not foreseen by others. The very reason why onepossesses stock is the market price. Worries about experiments or subjective costs do not apply here, as there is little chance that one is going to do anything else with the stock then either sell it or keep it because of the market price. This type of capital will be less subject to valuation problems, as we can observe the value of stock on the through its current exchange rate. Following Weisbach (1999: 108), there is a case for mark-to-market taxation of debt instruments, such as bonds. Under a realization approach, debt instruments can be cashed out at a strategic time to avoid taxation, and a mark-to-market approach can remedy this. As is the case for publicly traded stock, the epistemic challenge of mark-to-market does not apply: debt instruments are held purely to get repayment of the principal and the interest. Unlike capital in the real economy these assets will not be subject to unforeseen entrepreneurial initiative. For the same reason we do not foresee many valuation problems: debt instruments can be assessed by discounting cash flows at the prevailing interest rate. The proposed taxation of these financial assets is specifically relevant, as it is exactly the financial sector where profits are typically higher than the plausible social welfare returns to the sector (Zingales, 2015).

Realization approaches can also guide a broadening of the tax base. Not only does this mean that some (financial) assets can fall under a mark-to-market approach, it equally means that some events fall under a realization approach which currently remain untaxed. In *Helvering v. Bruun*, Justice Roberts clarified that realization does not necessarily require paper gains. The U.S. Supreme Court held that when a landlord repossesses his property after the forfeiture of a leasehold, and the tenant erected a new building on the premises, this constitutes realized and thus taxable income. The standard interpretation from the case is that “gain may occur as a result of exchange of property, payment of the taxpayer`s indebtedness, relief from liability or other profit realized from the completion of a transaction (Bittker, 1964: 67).”
We can extrapolate a bit further from this realizing of a non-monetary benefit. One frequently overlooked form of realization is the imputed rent that homeowners derive from living in their own house. While no exchange takes place here, the homeowner realizes a stream of benefits that renters would have to pay for. Such rent differs from mark-to-market conceptions by conceptualizing only the service that a durable good yields to an individual who is both the owner of the asset and its consumer or user in a given year. It is backward-looking: it measures the value that someone derives from the choice to use a property for themselves rather than rent or lease it over a specific time-horizon. It applies only to the final consumer of the asset who just happens to the owner. Although calculating imputed rent is not without some difficulties, it has the advantage of not pretending to estimate the whole value of the asset indefinitely into the future. While not identical and fungible, as with bonds and shares, there are often a sufficient number of real comparable contracts to rent or lease similar property in a given area so as to credibly estimate what cost would have been to the homeowner if required to rent it on the open market.

The key advantage of treating imputed rent as part of annual income is that, unlike other property taxes, it can be more easily included as income tax liabilities. This means that the usual progressivity of income taxes can be applied to the realized benefit that people generally draw from their single largest capital asset. For example, owners of a single family home but on an otherwise low-income will pay a small sum at a small marginal rate (or in some cases may be exempted entirely under ordinary tax allowances). By contrast, high earners, living in a large property that they also own, will pay a proportionately higher sum at a higher marginal rate on their imputed rent as it is added to their monetary income. Compared to other taxes on real estate, imputed rent is more systematically progressive and has significant support among economists especially in the United Kingdom (where imputed rent used to be part of the income tax framework) (Callan, 1992; Meade, 1984; Meade and Institute for Fiscal Studies, 1978).

This approach to tax reform is particularly apt because a range of international evidence suggests that the majority of contemporary observed increases in wealth inequality in developed economies, at least between the upper middle class and the new precariat, can be explained by changes in real estate asset values (Bonnet et al., 2014; La Cava, 2016; Rognlie, 2016). Taxes on imputed rent can play an important role addressing this, first by ensuring that the presently quasi-monopolistic
benefits of homeownership are better reflected in the tax base and, as a result, marginally discouraging support for policies that artificially raise rents through housing scarcity (Brueckner, 2016; Cheshire, 2009). Under this proposal, homeowners will feel the cost of rent rises in a way that to some extent parallels actual renters.

Finally, many forms of income, including from dividends, real estate or intellectual property are currently either exempted from taxation or treated beneficially, compared to labor income (Dietsch and Rixen, 2014: 155). While Piketty (2014: 518) proposes a global wealth tax on the rich – measured through mark-to-market – a more realistic option is a more uniform income tax, set by an extensive tax base that tries to include all forms of income. Such measure would increase the taxation of ‘capital’ albeit within the constraints of general rules rather than tailored taxes. The erosion of the fiscal base can equally be remedied by closing up the loopholes that arise from mismatches between different tax systems. It is widely known that international companies artificially shift profits dependent on the prevailing tax rules in terms of net assets vs. borrowed capital, the fiscal qualification of income and transfer pricing (Dietsch and Rixen, 2014: 154–155). The OECD’s BEPS (Base Erosion and Profit Shifting) contains 15 action plans that include minimum standards and common approaches between the member states, intended to halt the systematic advantage of multinationals (Dharmapala, 2014; Russo, 2016). Wollner (2014), Dietsch (2011, 2015), Dietsch and Rixen (2014) van Apeldoorn (2018) illustrate how philosophers can blend analytical skills and knowledge of theories of justice with empirical reasoning to pinpoint the content of a global tax justice. Within our view, a more uniform national tax regime and the battle against international tax evasion are entangled. Moreover, tax evasion arises when specific industries and large companies acquire tailored benefits (so called ‘tax expenditures’) that fall under a different regime under national law. To the extent that national tax systems cooperate to tax all income in a uniform manner – also the gains of mobile industries – the former would have less incentive for ‘fiscal shopping’.

vii. Conclusion

Is taxing capital as income a fair policy? Many philosophers argue that addressing growing economic inequality, especially wealth inequality, is the defining challenge of contemporary
advanced economies. In developing their arguments, these scholars rely on a simplified neo-classical vision of the economy both to conceptualize the problem of inequality and identify a core solution long supported by academic tax theorists: taxing capital assets based on their mark-to-market value. This parallels a strong rejection of the fairness and efficiency of the realization approach to taxation that describes most real-world approaches to tax policy.

Although this neo-classical model is useful for some purposes, we argue that it leads to missteps on this issue including an unwarranted rejection of realization approaches. The model leads theorists to conceptualize all prices in a market economy as given values that passive economic agents use as guides to profit maximization. This means that authorities can easily tax capital based on these supposedly predictable objective values. This approach misunderstands the nature of capital values under a more realistic conception of the market economy. On the account we defend, accurate market prices exist not by supposition but from competition between entrepreneurs to make progressively better use of available resources. This means that at any given time, many capital assets are unpriced or have public prices at great variance from their value in a theoretical competitive equilibrium. They must be imputed for a mark-to-market account to work. By contrast, a realization account of profit and income from capital are based on agreed prices representing realized benefits to individuals. This is both a more effective and fairer way of assessing tax liabilities.

We point out that rejecting mark-to-market taxation only rules out a narrow range of policies of contestable effectiveness aimed at reducing wealth inequality. Complementing the emergent literature on tax justice, we pinpoint some alternative avenues to the increased taxation of capital, measures which are more feasibly able to cope with the epistemic challenge of valuing capital. An understanding of the foundations of the realization approach can equally hint at its limits, for instance with regards to financial products. Furthermore, broadening capital-owners’ tax base, through an extensive interpretation of ‘realization’, including imputed rent, and international cooperation for a uniform tax base, would increase the progressive nature of our tax system, as Piketty and others propose to be an urgent policy priority.
References


