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## Perpetuating the Failure: Economic Education and the Current Crisis

While the current financial crisis had an overwhelming impact on the global economy, its effect on economics as an academic discipline has been negligible. This paper explores the relationship between the financial crisis, mainstream economic theory and the education of economists. In a nutshell it shows that (a) current economic education leaves students illiterate with respect to events like the financial crisis, (b) mainstream economic theory is unable to systemically explain the financial crisis and (c) this situation will be unaffected by the recent events. On the contrary economic education will stay pretty much the same, since it incorporates a set of ideas, perceived as influential, well-established and important by the economic community.

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### Keywords

performativity, paradigm, neoclassical economics, economic education, financial crisis

### 1. Introduction

The emergence of the current financial crisis in September 2008 (the bankruptcy of Lehman Brothers followed by a successive collapse of the interbank market, which lead to a decrease in credit-induced demand and GDP) was a surprise not only for the lay public, but also for most professional economists and other experts. Dirk Bezemer (2009), for instance, has identified only 13 experts, who successfully anticipated the current crisis in or before 2006. Additionally also the Bank for International Settlement (BIS) in Basel had a premonition of the current financial crisis (e.g. Brio and Lowe 2002).

This collective failure of the economics' profession (Colander et al. 2009), which was accompanied by a no less systemic malfunction of business journalism (Starkmann 2009), is comprehensible from a critical viewpoint on established economic theory. In sharp contrast to other social sciences, economic theory is, as is well known, arranged around an authoritative theoretical core, commonly termed neoclassical economics (see: Dobusch and Kapeller 2009). The neoclassical approach thereby dominates the economics' profession. Hence, most economists are committed to one of the several variants of neoclassical economics (roughly 80% of the economists organized within the *Verein für Sozialpolitik* avow themselves to neoclassical economics; see: Frey, Humbert and Schneider 2007). In this spirit one may interpret the failure of academic economists to predict and thoroughly ana-

lyze the current economic crisis as a severe defect of the neoclassical paradigm.

### 2. Basic problems of economics education

While neoclassical economic research is a relatively broad and manifold domain, at least within certain paradigmatical boundaries, the teaching of economic theory suffers from a much narrower perspective. Economic education almost always starts with and focuses on (variants of) the core of neoclassical theory: the supply and demand framework and the General Equilibrium Theory in the tradition of Arrow and Debreu (both are formally equivalent; see below). The basic features of these models also define the core elements of economic education. This self-imposed limitation characterizes all leading economic textbooks, which basically serve as an introduction to General Equilibrium Theory.

In this sense a basic problem of economic education is its nearly exclusive focus on just one theoretical conception, respectively paradigm. This rather narrow approach seems somehow tenuous, since the problems tackled by economics are similar to that of the other social sciences with respect to the fact they are contingent in time and space: general laws or basic propositions holding for all economies at a given time or for just one economy over all times seem, thus, improbable to find. This manifoldness associated with the problems of the social sciences, including genuine economic problems, demands a variety of perspectives on these problems and hence also a variety of theoretical and empirical approaches in academic teaching and research. In short, while multidimensional problems would also require multidimensional theoretical answers, modern economics mainly relies on one unique perspective for analyzing economic problems, namely the perspective of neoclassical economics. This lack of pluralism is especially problematic when it comes to economic education.

This argument corresponds with the citation habits of leading mainstream journals: theoretical perspectives deviating from the mainstream economists' attitude (like institutional, post-Keynesian or evolution-



ary approaches) are not discussed within neoclassical research (cf. Kapeller 2010). In contrast, they are nearly completely neglected by mainstream economists leading to tight paradigmatical borders between competing fields of research and, thus, reducing the scope of the debate within mainstream economics.

When it comes to economics education these borders are even tighter than in economic research (see also: Wilson and Dixon 2009). Additionally, they are also more problematic in the context of education and teaching, since the basic lectures in economics are delivered to a wide audience of students ranging from Law to Business Administration and Sociology. Thus, these basic lectures shape not only the ideas of future economists, but also those of a broader intellectual elite, which later occupies important positions in economy and society (like managers, government officials, business journalists or college teachers).

Most of these students only take a few lectures in economics before going into business, law, journalism or pedagogics. Regrettably, most of them have not been exposed to a greater variety of neoclassical models, not to speak of alternative theoretical conceptions, during their economic education. Thus, these rather parochial basic lectures have a strong impact on shaping what educated people generally think about markets, consumption, economic growth or simply "the economy".

Moreover, economic teaching is not only exhibiting a monist attitude when it comes to issues of theoretical diversity, but neoclassical economics also presents itself as a primarily ahistorical scientific endeavor thereby further limiting its conceptual variety. Many economists are receptive for an ahistorical view on economic issues, since they themselves have in many cases only little knowledge on economic history or the history of economic reasoning.

The common trend that courses devoted to these fields have been marginalized within the economics education (Chang 2004) is already reflected in a panel-survey on the attitudes of German-speaking economists: While in 1981 85% of the profession believed that business cycles could only be understood in conjunction with the general historical development, in 2006 77% principally agreed on the statement that "inflation is primarily a monetary phenomenon" (Frey, Humbert and Schneider 2007, 368-369). This corresponds to the idea, that business cycles can be modelled without any reference to historical events by using the standard equilibrium-approach. Consequently economic history or the history of economic thought (which do not even appear in any question of the 2006-survey cited here) is thought to be uninspiring or unnecessary for understanding real-world economic problems.

Moreover, this narrow focus has successively led to the exclusion of the "big economic questions" from

economics curricula, because the latter are strongly tied to the economics department's research practice:

"These include questions such as whether capitalism or socialism is preferred, what the appropriate structure of an economy is, whether the market alienates people from their true selves [...]. These 'big think' questions are ones that are worthwhile to teach, but are generally no longer included in the economics major because they don't fit the disciplinary research focus of the profession." (Colander and McGoldrick 2009, 6)

Similarly important national and international (policy-)institutions, like parliaments, central banks, the IMF, or even financial markets, are mostly neglected throughout the economics curriculum. Economic teaching nowadays instead focuses on mathematical and statistical training to allow economic apprentices joining the paradigm-specific debates by embodying advanced formal and econometric techniques as is put best by a classic piece on the sociology of economics:

"The young Econ[omist], or 'grad', is not admitted to adulthood until he has made a 'model' exhibiting a degree of workmanship acceptable to the elders of the 'dept' in which he serves his apprenticeship. [...] If he fails to do so, he is turned out of the 'dept' to perish in the wilderness." (Leijonhufvud 1973, 329-330)

Consequently also introductory textbooks further strengthen this attitude by focusing on economic models, instead of economic history or (real-world) economic statistics: most pedagogic examples do not rely on statistical data but on fictitious values invented at the desk of the textbook-author in order to fit the courageous assumptions necessary for developing the respective economic model (Benicourt 2005, Ötsch 2009).

As a result of this increasingly one-sided education young economists in the German-speaking area have a much stronger confidence in neoclassical economics than their older counterparts, who were exposed to different research paradigms and interdisciplinary courses on economic history or sociological theory during their education (Frey, Humbert and Schneider 2007, 362-363). In his recent book David Colander (2009) argues that the tendency to substitute Europe's traditional curricular forms in economics for their US-counterparts is further narrowing and weakening economics as an intellectual endeavour.

### **3. The role of textbooks in economics education**

Economic textbooks are powerful devices, which serve as the main vehicle for the international standardization of economic education. While there exists in principle a broad variety of different economic textbooks, a closer examination shows that the collection of topics covered as well as their specific treatment follow



a rather standardized routine, rather independent of the concrete author or publisher (Stiglitz 1988, Lee and Keen 2004, Grimes 2009; for notable exceptions see section 6) “As a result most new textbooks are, generally speaking, clones of existing ones.” (Hill and Myatt 2007, 58)

The typical textbook starts with a discussion of some fundamental principles and then turns immediately to the supply and demand framework. The intended purpose of this model according to its apologists is to show “how markets work”, i.e. to illustrate the basic idea of the “market mechanism”. Additionally, the model of perfect competition is developed mostly by utilizing three distinct parts: the theory of the household, the firm and the market. While the supply-demand scheme is applied to a series of simple examples, suggesting it is a generic tool for an analysis of markets, the model of perfect competition is presented as a special case based on overly narrow assumptions. In fact, the perfect competition model is a popularization of the General Equilibrium Theory of Arrow and Debreu. While the latter is highly formal in nature, the former represents a simplified, often diagrammatic, textbook version of the theory, which can be understood as an introduction to General Equilibrium Theory.

While most textbooks differentiate between the supply and demand scheme and the model of perfect competition on a rhetorical level, they are, in fact, formally equivalent. Therefore “both” models can be depicted by the well-known supply-demand scheme, it is the main illustration of the neoclassical paradigm’s core. Generally many neoclassical economists believe that the supply-demand model and/or the model of perfect competition resemble the genuine “market-mechanism”, as the single most important mechanism working in any economy. Mankiw’s prominent *Principles*-textbook, for instance, depicts the supply-demand schedule 91 times on 850 pages (Mankiw 2001, reference is made to the German edition). In none of these 91 cases it is discussed whether the institutional preconditions regarding the applicability of model are fulfilled, maybe because this question is anything but easy to answer (see Ötsch 2009, Chapter 6). In all textbooks the supply demand model and/or the model of perfect competition is broadly applied to markets where the assumptions are plainly untrue (e.g. to the effect of taxes in cigarettes in USA, a market with only four firms). Consequently there is no discussion whether this model can be used at all or how to evaluate empirical evidence against different models. In this spirit Hill und Myatt (2007, 58) discuss an “overemphasis on perfectly competitive markets in microeconomics principles textbooks”.

Completing the model of perfect competition marks the halfway point of nearly all textbooks (many courses don’t spend much time on the second half of the text-books). Subsequently other types of markets

are discussed, like monopoly or oligopoly and the final chapters usually deal with factor markets and other topics like the role of government. But references are always made to the model of perfect competition as a ready-to-use hermeneutical tool and a benchmark for policy decisions. In this spirit “it is not surprising that the perfectly competitive framework is seen by many students as synonymous with the microeconomic analysis of markets” (Hill and Myatt 2007, 60).

The uniform features in economic textbooks discussed here could have historical reasons as well. The first prominent textbook in USA after WWII was that of Paul A. Samuelson (starting in 1948, see also: Colander and McGoldrick 2009, 31-32; Skousen 1997). Economic textbooks up to now are mostly structured after the Samuelsonian archetype, covering very similar material presented in a very similar mode. The Samuelsonian classic focused on presenting simple formal models of economic mechanisms, which were at the core of the text, combined with vague and sketchy real-world examples, to give some intuition about the supposed explanatory value of the models. Samuelson thereby was well aware of the fact that defining economics’ core knowledge via a widely distributed standard textbook may have an impressive societal impact: “I don’t care who writes a nation’s laws, or crafts its treatises, if I can write its economics textbooks.” (Samuelson, quoted in Skousen 1997, 150)

The Samuelsonian focus on simple diagrammatic models, in some cases backed up by a little algebra, as the core and fundament of any economic education has been perpetuated till the 21<sup>st</sup> century. Such an approach is, perfectly compatible with an emphasis on the simple diagrammatic version of General Equilibrium Theory as discussed above, which was forced by the influential “Chicago School of Economics” as well.

Many publishers of modern textbooks tend to further enforce this tendency of a self-reproducing teaching-standard, since most new textbooks are subject to a thorough peer-review process. In this context textbook-authors report that already minor changes in the standard presentation (e.g. terminological changes), are regarded as conceptual flaws by the reviewers (having the standard Samuelsonian-Chicago conception of a textbook in mind) and causes publishers to demand changes by the authors. If the authors refuse to make the demanded alterations publishers reduce the marketing spending associated with a certain textbook (thereby reducing the authors’ income) or drop the project as a whole.<sup>1</sup>

1 At the 2010 ASSA-conference in Atlanta David Colander reported of heavy objections against his move to change the name of the „Aggregate Demand Curve“ in his intermediate macroeconomics-textbook to „Aggregate Equilibrium Curve“ for reasons of consistency (see also: Colander 1995). Consequently his publisher threatened to „turn the book down“, which lead Colander to use the traditional label.



Moreover, there are also rather practical reasons for the popularity of standard economic textbooks: They are, from an economic perspective, rather cheap, i.e. “efficient”, when used to prepare economic lectures, since economists already know the relevant models in depth and just have to adapt this knowledge to the presentation in the textbook. Additionally, there is a lot of auxiliary material accompanying those textbooks, like ready-made power point slides for presenting the material in class, specific “teacher-editions” of textbooks or various web-based resources like data-bases with exam-questions and their respective answers.

Peter Grimes (2009) investigated the question why the alternative “social issues”-approach to economic theory, which puts problems instead of models at the centre of academic teaching, has not succeeded in replacing the traditional mode of acquiring economic skills. His main conclusion (Grimes 2009, 96) is that “after a while, the marginal cost of preparing to teach a traditional principles class drops toward zero while the marginal cost of preparing to teach a social issues course remains relatively high.” Thus, economic textbooks also function as a kind of “labor-saving device”, which allows for a reduction of time spent in preparation for courses. This is, of course, beneficial for the individual scientist since “when asked about the importance of teaching versus research in promotion decisions at major universities, one hears that practice dictates 90 to 95 percent of the decision based on research output.” (Colander and McGoldrick, 2009, 28) Devoting only a minimal amount of time to teaching preparation is thus an immediate imperative for the ambitious *researcher*, thereby reassuring that the standard textbook will be her or his preferred choice and guideline.

#### 4. Failures of neoclassical textbook reasoning

The neoclassical focus in economic education has a variety of different effects. Among other things it may illuminate, why economists and similarly educated professionals (speculators on financial markets, business journalists...) were not only unable to predict the financial crisis, but, moreover, believed that such an event was possible at all (for the prognoses of German research institutes, see the list in Nienhaus 2009, 19). In our opinion, neoclassical textbooks economics lacks the essential tools to explain why capitalist economies are, to some extent, prone to crises in general and financial crises in particular.

This claim may seem somehow odd, since, as already mentioned, neoclassical research contains a broad spectrum of models, some of them especially devoted to explaining the notoriously unstable behavior of financial markets (e.g. Hart and Kreps 1986, De Long et al. 1990). While such contributions are sometimes even prominently discussed and highly cited, they in-

roduce new assumptions or modify already existing ones and, thus, deviate from the simple textbook example (while preserving many of its core ideas). Hence, they are (a) not taught within the standard curriculum leaving the vast majority of students unaware of their implications and (b) only familiar to small circles within the economic community, which are especially considered with the instability of prices (on financial markets).<sup>2</sup>

But the majority of professional economists follows those theoretical concepts which are in line with the standard textbook reasoning. Well-known examples are the main models in modern finance, like (1) the efficient market hypothesis – it declares financial markets as always in equilibrium -, (2) the capital asset pricing model – it defines the main relationship between risk and return, (3) the Modigliani-Miller theorems – which say that the way in which a firm finances its real activities does not affect the cost of capital, i.e. finance can be separated in some way from production activities – and (4) the Black-Scholes-Merton option-pricing models which underlies a broad range of concrete calculations e.g. in derivative markets. All of them are in line with the Arrow-Debreu model of General Equilibrium, the core model of neoclassical textbook economics. In this context it seems appropriate to illuminate some of the central deficits in this reasoning.

#### 4.1 The concept of the actor

Neoclassical economics rests on two basic concepts: (1) of man as a fully rational, but socially isolated agent, and (2) of the “market” as a central coordination device of economic activities. Both are based on a strict reductionism: social phenomena as such are, more or less, inexistent, since they are always explained by referring to individual behavior (methodological individualism, firms are modelled analogous to single persons or households, see: Ötsch 2009, Chapter 5). The explanatory capability of the neoclassical approach is, thus, inevitably linked to the suitability of its conception of the individual actor.

Regrettably the concept of human actor in neoclassical economics is fairly limited. It is considered as a information processing machine (Mirowski 2002): data from the outer world, e.g. prices in markets, are processed by an “inner” program, the results are perceived as “behavior” in the outer world. Therefore, the agent follows a simple “stimulus-reaction”-scheme (Blaseio 1986).

Such an approach is only plausible if the “internal program” is constant and immutable over time. It serves as a stable transformational field, which guarantees the conversion of external data into a unique and unambiguous result. Thereby the “internal pro-

2 We have to thank one of our reviewers for a hint on this specific debate.



gram” consists only of a set of preferences and a processing algorithm (e.g. “maximize!”). Preferences, thus, occupy a central and decisive role in the neoclassical image-of-man, they *define* him or her.

But the concept of preferences is based on very restrictive assumptions (Ötsch 2009, Chapter 4). For instance, they do not change (neither through time nor through interaction with others, see: Fullbrook 2005) or they are not subject to any social, societal or cultural influence (Wolfson 1994). In textbooks preferences are mostly explained by discussing some rudimentary assumptions, which are, in turn, illustrated by fictitious examples (Benicourt 2005).

Moreover, most of these restrictive assumptions contradict conventional knowledge concerning human cognition (as found in cognitive sciences) and the implications of cultural conditions for individual behavior (as found in cultural sciences). Individuals in neoclassical theory act like human calculators or like computers running a very simple software, which is stable, exogenously given and does not change in response to different circumstances. People in neoclassical basic models cannot alter their models. They have no ability to reflect themselves, to adapt their mental models and to learn. “Behavior” of this kind has nothing to do with real human actions as they appear in the normal course of life. Additionally, there

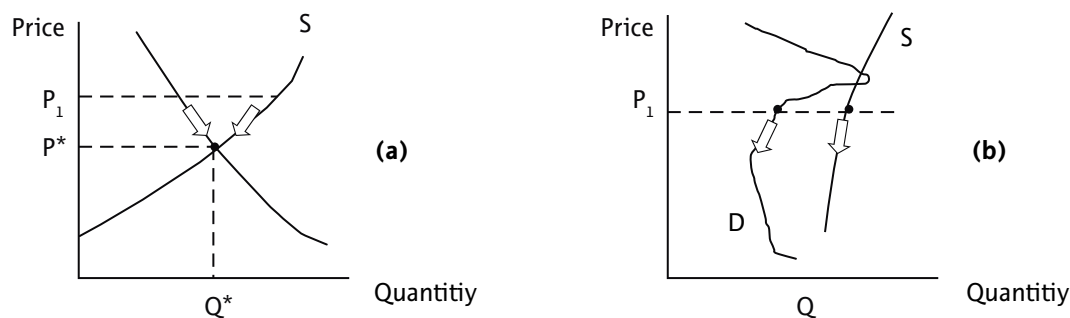
is, of course, no self-reflection or reflection about the world or the economy – the individuals in neoclassical economic theory have no self-image and no self-consciousness (they are automata, like animals in Descartes’ world view).

#### 4.2 The concept of market

The basic idea of the market is represented by the supply-demand schedule, where the price of a commodity is determined by the intersection of supply and demand (see figure 1(a)). But even this seemingly simple model is based on a series of far-reaching assumptions, which are well-known to specialists but not mentioned in almost all introductory textbooks.

A prominent example is the so-called stability problem. It asks whether a market starting from a situation where supply ( $S$ ) does not equal demand ( $D$ ), e.g. at price  $P_1$  in figure 1(a), can reach equilibrium ( $Q^*$ ) by itself. In Figure 1(a) this seems no problem. If at price  $P_1$  supply  $S$  exceeds demand  $D$  then it could be plausibly argued that producers lower the price. This would induce growing demand and shrinking supply. So the market would “move” along the arrows and finally arrive at a stable equilibrium. Here we have a price  $P^*$  which corresponds with a quantity  $Q^*$  where supply equals demand.

**Fig.1: (a) a stable, (b) an unstable market for a consumer good**



But the dynamic feature of the market strongly depends on the actual form of the supply and demand curves. Figure 1(a) represents the “standard case”: as the market price rises, supply grows and demand decreases. But the shape of these curves depends on many further assumptions inside the model. For instance, we have to assume increasing average costs, which does not hold for many empirical cases, in order to preserve a well-behaved supply curve as depicted by figure 1(a). In figure 1(b) we look at a specific demand curve. If at a price  $P_1$ , where supply exceeds demand, firms lower price then the supply surplus would rise further and further. Thus, the market shown in figure 1(b) is notoriously unstable and cannot reach any equilibrium-state.

On a more general level we can ask which conditions must be fulfilled, to exclude the possibility of “global instability” in a general equilibrium framework (with all its idiosyncratic assumptions). This question has been discussed intensely for more than 50 years (for an overview see Costa 1998, 78ff.) leading to a definitive result: global instability can only be excluded if we impose further restrictive assumptions on the structure of preferences, e.g. we must assume (a) that all households have the same preferences, which implies they are identical, or (b) react in the same way to changing income (Keen 2002, 45f.). Of course, these assumptions are not empirically justified. Hence, it is unsurprising to note that “the results [...] concerning global stability are unquestionable negative.” (Ingrao

and Israel 1990, 361) Neoclassical theory, thus, does not show “how real markets work”. At its best the supply and demand framework is an inspiring heuristic for analyzing price-quantity relations on certain markets (this can be achieved by dropping all background assumptions), at its worst it shows an utopian image of an ideal market with a strong ideological aftertaste.

The stability discussion and its far-reaching consequences are seldomly mentioned in microeconomic textbooks. A notable exception is the textbook of Mas-Colell, Whinston and Green (1995). But while it explains the main theorems of the stability problem, it drastically understates its importance: “The center of our science”, the authors argue, is constituted by “the equations of equilibrium”. “The determination of dynamic laws of change” on the other hand is the main feature of “other sciences, such as physics or even ecology”, i.e. they are not relevant for economics (1995, 620). But restricting theory only to equilibrium points permits an explanation how these equilibria could be reached and, thus, dramatically restricts the scope of neoclassical equilibrium theory.

But equilibrium points include unresolved puzzles as well. In the neoclassical model of perfect competition all agents (households and firms) follow prices given by “the market”. Nobody determines prices, this does “the market”. But who is the market? The “market” in this conception is an impersonal and anonymous authority, which exists independently of individual transactions and is not controlled or directed by any human entity. The condition “supply=demand”, which holds for market-clearing prices, is only a theoretical assertion without empirical confirmation. In fact, it is rather dubious, who or what determines prices in this context (it is not the market participants, because these only accept the *given* prices). Hence, “equilibrium prices” in economic models are mostly deduced directly from the relevant assumptions (e.g. that “markets *are* in equilibrium”, an assumption as utilized in theories on financial markets). What the theoretical concept of *the* market means from an empirical or institutional perspective remains fairly unclear: we simply do not know, what is meant by the neoclassical idea of *the* market when confronted with empirical and institutional settings of a given economy (it lacks appropriate correspondence terms to translate between theory and reality; see: Nagel 1963, Ötsch 2009, Chapter 6).

#### **4.3 Relation to the analysis of the current crisis**

The arguments discussed in the two preceding subsections are a helpful guide to understand the weaknesses of contemporary economic theory when it comes to predicting and/or analyzing the current financial crisis. Neoclassical agents live in a fixed reality. It can be perceived without any ambiguities. Moreover the

collapse of the interbank-market in September 2008 can be understood as a dramatic change in perceptions, interpretations and expectations. The mutual ideas and views central protagonists (banks, investors, speculators) had of each other have been drastically altered. As a result risky assets have been reevaluated on a broad scale. This sudden cleavage between planned actions, actual activities and blurry expectations led to strong imbalances and systematic disequilibria on various levels. In this context it is, of course, regrettable that the standard conception of the market is based on the idea of a stable, self-regulated equilibrium and, thus, unsuitable to analyze situations of systemic imbalances and irregularities.

Moreover, this concept of the market is free from any historical connotations: historical knowledge on financial crisis (e.g. Kindleberger 1978) or the idea to distinguish between different historical episodes with different decisive characteristics (e.g. current financial capitalism as opposed to fordism) is, thus, simply inapplicable in the ahistorical model world of contemporary economics. From this perspective it is not surprising that mainstream economists couldn’t foresee the upcoming crisis (they also couldn’t predict or systemically explain the subprime-crisis, which started in 2007 with similar, but smaller, effects as compared to the current crisis). For instance, the original general equilibrium model does not include money (it cannot even be integrated into this approach, see: Ötsch 2009, 269ff), therefore, it shows a “capitalism” without money. Most macroeconomic models used for prognoses do not include financial wealth and banks interacting with real sectors (prominent examples are the Washington University Macro Model with 600 variables used in US politics, or the Small Global Forecasting Model used by the OECD, see Bezemer 2009, 18ff.). Most models dealing with financial markets follow the efficient market hypothesis. It says that all relevant information is included in actual market prices. This implies that nobody could achieve permanent gains from financial markets and (that’s included in its strong version) bubbles could not be possible at all.

In all these widely used models crises do not appear since the focus is on the self-regulatory capacities of *the* market. This habitual overemphasis systematically blinds economists: they simply do not recognize (any more) that crises and bubbles are an essential feature of capitalist economies and, thus, there is no economic toolbox to analyze, let alone predict, financial crisis as the current one.

#### **5. Effects of the current financial crisis on the teaching of economics**

Contrasting the path-dependent aspects explored in section three with the recent experiences from the current financial crisis might lead to the conclusion



that this major historical event would also be considered as a crisis of neoclassical reasoning. While some economists (and non-economists) have articulated critical statements against mainstream economic theory<sup>3</sup>, this is still a minority position. In spring 2009, for instance, 83, mostly elder, German economists issued a critical statement for more realism in analyzing economic policies, thereby arguing against modern macroeconomics (Frankfurter Allgemeine Zeitung, April 27, 2009). But the opposite viewpoint gained support from 188 economists (Handelsblatt, June 8, 2009) who argued in favor of “internationally competitive” economic theories.

The majority of economists do not consider the actual crisis as a crisis of economics as well. Only some prominent economists (like Nobel prize winners Joseph Stiglitz and Paul Krugman, see Handelsblatt January 11, 2010) took the economic crisis as an occasion to criticize established economic reasoning. Evidently for most economists it is very hard if not impossible to get distance to their own thinking and detect a crisis of their paradigm. Their acquired knowledge in standard economic theory is still highly remunerated in the scientific community. In media, in prominent boards and as policy advisers we find the same neoclassical economists as before the financial crisis, e.g. in the German expert advisory board on economic policy (Sachverständigenrat).

In this way there is no general debate on how to change economic education. In this spirit leading economic textbook authors comment on the issue as follows:

„Despite the enormity of recent events, the principles of economics are largely unchanged. Students still need to learn about gains from trade, supply and demand, the efficiency properties of market outcomes, and so on. These topics will remain the bread-and-butter of introductory courses.” (Gregory Mankiw)<sup>4</sup>

„More economic research (and teaching), not less, is the best hope of both emerging from the current crisis and of avoiding future ones.” (Doug McTaggart, Christopher Findley und Michael Parkin)<sup>5</sup>

So contrary to what one would expect, leading textbook authors don't seem to recognize any necessity to change the basic commitments of economic education. Instead, they recommend “more of the same”, i.e. a more intense education in economics; a claim that is sometimes even made for extending the existing

body of economic education into the sphere of public schools to facilitate “rational” behavior and, hence, improve economic performance (e.g. in Cassel 2004).

Another interesting occasion for observing the economic community's reaction to the current financial in terms of teaching, was provided at the ASSA-conference 2010 in Atlanta, where a panel of highly decorated economists (Benjamin Friedman - Harvard, Raghuram Rajan - Chicago, Robert Shiller - Yale, Alan Blinder - Princeton) was assembled in a session titled “How should the financial crisis change how we teach economics?” Interestingly, with the exception of Alan Blinder who presented plans for some minor changes in his macroeconomic textbook, none of the speakers made a single concrete suggestion on how to change economic education, economic curricula or economics' basic pedagogical tools (diagrams, textbooks...). All panelists stuck to general, uncontroversial and vague statements such as: “economics should be practically useful for students” or “economics should be more realistic and care about institutions”. In sum, the session confirmed the impression that the basic features of the economic education will stay as they are.

When looking more specifically for teaching material devoted to explain the financial crisis within the standard economics curriculum one comes across tools like the “teaching note” of Stinespring and Kench (2009). This has been downloaded over 300 times and frames the financial crisis as a prisoner's dilemma, focusing solely on the interbank loan market. In this context the current financial crisis is presented primarily as a crisis of trust between different banking institutions, thereby abstracting from the systemic reasons of the current financial crisis. Thus, also when it comes to explaining the current crisis to students, economists prefer to stay within the boundaries of standard neoclassical theory even if this, as in the current case, leads to a drastic oversimplification of the matter at hand. So, altogether, the current financial crisis doesn't seem to have any decisive impact on the way economics is taught.<sup>6</sup>

## 6. Concluding remarks

Based on the arguments presented in the preceding sections some relatively clear-cut suggestions for the reform of economics curricula can be delineated. We will conclude this paper by discussing some major implications of our argument so far.

First, it seems necessary to implement a pluralist orientation within basic economic education: when stu-

3 As summarized by Nienhaus (2009). Collections on the current debates can be found on [www.voxeu.org](http://www.voxeu.org) and [www.blicklog.com/finanzkrise/wissenschaft-und-medien](http://www.blicklog.com/finanzkrise/wissenschaft-und-medien).

4 see „That Freshman course Won't be quite the same”, New York Times, [23 May 2009].

5 see entry „The State of Economics” in East-Asia Forum, Mai 21, 2009 online: <http://www.eastasiaforum.org/2009/05/21/the-state-of-economics/>, [10 July 2009].

6 Similar things can be said about the trends in economic research: The widely disseminated paper of Colander et al. (2009) on the current crisis and the state of the economics profession basically recommends „more of the same”, i.e. more advanced mathematics, more sophisticated statistical techniques, more complex models and so on (see also the debate in the *real-world economics review*, issues 48-50).



dents are introduced to different theoretical approaches they may debate their relative merits and develop an awareness about the weaknesses and strengths of competing theories and the inherent complexity of economic activities. In turn, they would possibly be more inclined (and also more able to) analyze given problems with methodological and theoretical instruments appropriate to the questions at hand instead of using an invariable set of methods prescribed by tradition (for an overview of concrete suggestions for a pluralistic economic education see: Elsner 2006, Reardon 2009 or Rima 2011). Additionally, such a reform would favor (1) the return of the “big-think questions” to economics’ curricula, i.e. those which make economics an interesting subject, (2) as well as a problem-centered approach to teaching economics.

Second, an economic education should supplement its core training by courses in related areas such as economic history, sociology, political science or philosophy in order to provide students with some context knowledge on economic systems (what is the history of an economy? where do its institutions come

from? what’s the relation between economy and society? ...). The history of economic thought should, from our point of view, return to a central position within economic education: teaching students about the curious and idiosyncratic developments in economic reasoning broadens their perspective and gives them a glimpse on the variety of solutions to questions regarding the “economy” developed over time. In any case this would be a more balanced treatment than providing students with extensive textbook knowledge, which is presumably based on current knowledge but in fact lags about 30-50 years behind.

Third, and maybe most important because institutionally decisive, we would argue for the usage of a more balanced set of basic textbooks incorporating a broader variety of theoretical approaches (as: Stretton 1999, Lavoie 2009 or Reardon 2009) or at least a broader perspective on established economic theory (as: Klamer et al. 2010). An even more recent example is given by the forthcoming textbook of Elsner et al. (2011), which is based on evolutionary and institutional approaches to microeconomics.

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