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The Present State of Economics: Errors and Omissions Excepted

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The Emperor Is Naked¹

More and more often, confidence in the professional qualifications of individuals representing certain occupational groups which formerly were held in high esteem has started to erode. Dismissing scientific evidence and ignoring expert opinion has become a feature of political discourse around alternative truth. In part this is self-inflicted as various statements that are publicized with the aura of academic certainty do not stand up to closer scrutiny. Alas, this applies particularly to economics, which is often held up as the supreme discipline of social sciences. It suffices to take a look on page one of reasonably respectable printed media to recognize how important economics is in contemporary society. In this chapter, we highlight some issues from micro- and macroeconomics that are critical.

Against this background, one should expect that specialists in the field would have thoroughly analysed principles and functioning of modern

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economies in order to provide solid knowledge concerning the system's operating mode. Far wrong! There hardly is any other branch of science where there is such a pronounced incongruity between the outstanding significance of the subject and the lack of expertise of most professors as in economics. This may seem particularly grotesque since for many years only those who have published numerous articles in the very best journals under the strictest *peer review* conditions normally have a chance in appointment procedures. With that said, the unbiased observer will wonder why there are still pressing economic problems.

One reason for the deviation between expectations and reality certainly is the discipline's susceptibility to ideology, albeit obvious, but also tabooed, that may promote or inhibit particular interests by its services rendered. As a consequence, for example, the acquisition of third-party funding has become an important financial source in academia and prompts one or two to rebuff their love of truth.

To be sure, this chapter is not about the causes, manifestations or effects of the increasing subjugation of university research to market logic, but addresses some conventional dogmas that are part of the standard repertoire of economics. To do this, several established methods and common practices go by the board.² Thus, for example, measurement of utility is ignored,³ the explanatory power and relevance of the General Equilibrium Theory is not appreciated (Helmedag, 1999; Michaelis, 2013) let alone to cast doubts on whether a macroeconomic production function exists at all (Felipe & McCombie, 2013). The following account is led off by equivocal microeconomic statements, followed by flimsy macroeconomic claims, and finally addresses doubtful opinions regarding money and fiscal operations.

Markets, Prices, Competition

The crucial deficiencies in a doctrinal system are generally not found on the upper levels, but rather in the foundation. In textbooks, the gist of economics is often defined on page one as the clever arrangement of scarce means to optimally satisfy unlimited wants. Thereby, the discipline eventually claims to be qualified in relation to *any and all* issues where people can 'choose between alternatives'. Though this 'economic imperial-

ism' has written nice satires, without a substantial specification the object of knowledge will become arbitrary if any formal maximization subject to constraints belongs to the field.

Without retracing in detail the semantic change of the word 'economy' in the course of history, it is imperative, from a modern stance, to realize the fact that the allegedly all-embracing phenomenon of scarcity has also altered its content.⁴ As a matter of fact, for a long time the vast majority of mortals 'lived from hand to mouth'. The purpose of the economy was to satisfy given needs and centred on the 'idea of food' that 'shaped all pre-capitalist economy'.⁵

By contrast, a drastic transformation has occurred since the industrial revolution. Almost all developed countries are affected by chronic excess capacities and persistent unemployment. Instead of satisfying existing needs as in the past, now the perpetual creation of demand is called for. Today, selling constitutes the problem and not production. Actually, from a *macroeconomic point of view*, there is rarely any *universal* scarcity in mature capitalism. Against this background, the objective of economic research should be to fathom the conditions under which as many people as possible can benefit from the historic victory in the production battle while managing exhaustible and non-exhaustible resources in a reasonable way. As a consequence, the issue of distribution deserves a top rank on the agenda which, however, is not the case. In lieu thereof, quite in the manner of the old *dismal science*, the audience is made to believe that society still has to cope with scarce goods and the people have to accept the hardship of economic laws *no lens volens*. However, fierce competition promises to make the best out of the circumstances.

Given perfect competition, an 'invisible hand' acting behind the back of the agents ensures that the rivals' striving for the biggest individual benefit would generate the maximum achievable welfare.⁶ A countless number of consumers, atomistic firms, lack of preferences and complete transparency prevent any market power, and consumers are optimally supplied by altruistic sellers who carry out their business without the slightest prospect of profit in the long run. This statement is based on two premises that are seldom mentioned, if at all, *viz.* prices are considered as given and the cost functions comply with the law of diminishing returns. However, both prerequisites are solely fulfilled in exceptional situations.

By supposition, an ‘infinite number’ of suppliers behave as price takers because in this case the individual demand curve would run parallel to the quantity axis. Consequently, the price remains constant, no matter how much a firm sells. The obvious question from where the price fixed as a ‘datum’ stems is answered by referring to the intersection of a *rising* aggregate supply function and a *downward-sloping* aggregate demand curve.⁷ In fact, the first assertion applies to special cases only, whereas transferring the second statement on the individual supplier is mere eye-wash from a mathematical point of view. If, in the overall picture, price and quantity are negatively correlated, then even a myriad of sellers (which, in reality is certainly a finite number) cannot invalidate such a relationship.⁸ To maintain the mirage, one must make the highly dubious assumption proposed by Cournot that the action of each seller would have no impact whatsoever on the supply policy of competitors (cf. Helmedag, 2012a).

In the model under inspection, maximum profit is determined by the intersection of the marginal revenue curve, which coincides with the constant price, and the rising segment of marginal costs. However, as long as profits exist, additional sellers enter into the market. In the end production is accomplished at minimal full costs per unit. Then, profit is totally eliminated by virtue of competition. Of course, this result is highly welcome to the established doctrine as now the permanent excess of revenues over costs does not have to be explained anymore. Thus, an essential issue of economics is conjured away from the analysis.

This rationale necessarily implies cost functions according to the law of diminishing returns where the increasing segments of the individual U-shaped marginal costs are aggregated into a total supply curve. However, such considerations suggest systematic miscalculations because capacities are permanently too small, causing unit and marginal costs to rise with output. Anyway, empirically constant variable costs dominate in the relevant range (cf. Lee, 1998, pp. 12 ff.).

Therefore, a convincing theory should take both diminishing marginal revenues and constant (or even decreasing) marginal costs as a starting point. Yet, consequences will be far-reaching. In equilibrium, price always exceeds marginal costs, that is to say, in principle, market output will be lower than the quantity which maximizes the total advantage from

exchange. Consequently, the first fundamental proposition of welfare economics is violated. If so, monopoly capitalism generates de facto sub-optimal results, which contradicts popular ideals as to the welfare effects of perfect competition.

Another travesty of reality provided by established microeconomics needs to be corrected. For a *producer*, no supply *curve* combining alternative prices with appropriate quantities exists. Once demand and cost functions are known, the supplier focuses on just *one single* profit-maximizing price-quantity relation. On each demand curve, the *point* named after Cournot constitutes the single market solution! Accordingly, equilibrium between supply and demand means that both customers' consumption plans (*need*) and firms' pursuit of maximal profit (*greed*) will come true, but not the welfare optimum promised in many textbooks.

As a general principle, rising supply functions will imply trading out of *stocks*. So to speak, such curves reflect the own demand for a certain object. In order to give an example, let's assume that Tom only possesses wine whereas Harry exclusively owns cheese. At the outset of barter, they both relinquish the first units of their respective belongings for a small amount of the partner's good. However, as the initial endowment runs low, larger quantities are demanded for compensation. Voilà, such a supply function will be upward sloping. Capitalistic mass production where commodities '...can be increased in quantity by the exertion of human industry...' (Ricardo, 1970 [1817], p. 12) precisely does not mean that a higher output entails rising prices, quite the contrary.

Furthermore, another widespread misinterpretation pretending to describe market developments is based on the simplified model of crossing supply and demand curves. Time and again they say, the price of a good in excess supply necessarily plummets. But this speculation unduly elevates bazaar-type haggling to a general principle. For instance, the mainstream economist will certainly only encounter uncomprehending disapproval when, in the light of apparent glut of toothpaste (or many other items) in a grocery, the representative of the prevailing doctrine asks the drugstore clerk for a price reduction.⁹ Standard neoclassicists who request dealers in used cars for hefty discounts because their lot abounds with vehicles will probably experience a similar reaction. Likewise, in

regard to hotels not fully booked or vacancies of rental apartments, the story of price slumps being caused by excess supply turns out to be an overly simplifying description of the real world. At best, such lecture theatre stories portray peripheral matters of economic life.

Income and Volume of Work

Remarkably, it is not only traditional microeconomics that uses the per se autonomous notions of supply and demand to tackle more or less relevant problems.¹⁰ Rather, for several years also, macroeconomic analysis refers to these categories which are conceptually disconnected with one another. On a system level, reasoning with the isolated creations of *Aggregate Supply* and *Aggregate Demand*, however, is rather deceptive as these two labels are mutually entwined via income. To be sure, an assumption referring to a specific market is acceptable provided that no appreciable loss of perception entails. However, a premise which excludes significant repercussions in the system should by no means be tolerated. Any sensible macroeconomics cannot do without considering the circular flow or the sectoral balances, respectively. Unfortunately this is missing in mainstream economics.

The lack of analytical depth has a particularly dramatic effect on the theory of income and employment. For example, the latest controversy on minimum wages in Germany has shown, once again, how very superficial and shallow the argumentation advanced by the so-called experts was. Employing the established 'potato market theory' to labour demand, many supposed professionals predicted that the implementation of minimum wages would provoke the loss of several hundreds of thousands of jobs. Fortunately this prophecy has turned out to be nothing but another hysterical false alarm. Nonetheless, this doom-mongering proves how poor solid knowledge is, even among specialists.

The vast majority of economists, in both theory and practice, obviously have no idea where profits in capitalism come from. This provides a reason for the fact, as discussed above, that the perfect competition model takes a prominent role in teaching long since, as this approach expels the troublemaker named profit. On the other hand, over decades,

national accounting reveals considerable income from entrepreneurial activity and wealth—a phenomenon that, in itself, should be reason enough to reject the counterfactual dogma of profit vaporization in the heat of perfect competition.

Nevertheless, even in this matter the microeconomic perspective has been transferred to the entire economy. On a corporate level, profit increases with the difference between revenues and costs. From a purely business-management point of view, it is thus always advisable to cut costs. However, individual and collective rationality diverge. If spending is slashed everywhere, all in all there will be fewer opportunities to make money. In the light of this, it would be the task of science to show ways of overcoming the prisoners' dilemma situation.

As a matter of fact, overall profit (P) comprises the consumption of profit earners (C_p), their investments (I), the net export—exports (X) minus imports (M)—and the budget deficit of the government including the social insurance sector (D). This sum is lessened by the saving of the workers (S_w):

$$P = C_p + I + (X - M) + D - S_w \quad (7.1)$$

However, the propensity to save out of wages is low, which is obvious from the fact that the lower half of the population in Germany hardly possesses any net financial assets. That is why a rising wage bill will initially be accompanied by an under-proportional reduction in total profits. Second-round effects of an increasing mass purchasing power even have a positive effect on entrepreneurial gains if investments that are mirrored in profits rise with revenues.¹¹ Besides, the income of the capitalists will increase with and to the extent of their own domestic consumption—another aspect that is suppressed all too often.

In addition, when profit is dissected into its components, it becomes visible that the representatives of the employers and their academic proponents share a poor understanding of modern capitalism in other respects, too. Incessantly, they rage against all governmental deficits across-the-board, but they fail to recognize that in the same breath they postulate lower earnings for their clientele. On the other hand, an expertly

managed policy of deficit spending by the state fosters effective demand, raises employment and increases welfare via an improved provision of public goods (cf. Helmedag, 2014, 2015a).

Incidentally, a tax-financed expansion of the budget will generate positive income effects because the higher expenses will fully flow back into the circuit whereas private households would have saved a part their income. This conclusion should have been obvious for quite some time (cf. Haavelmo, 1945), but it has fallen into oblivion in everyday discussions. Rather, beginning in the 1980s of the previous century as part of *Reaganomics*, the ‘Laffer curve’ has made a splash with the message that a relief of the allegedly enormous tax burden would stimulate economic activity. Thus, the state would receive additional revenues—a cock-and-bull story under prevailing circumstances, as any insider knows. Without prejudice to the above, appropriately indoctrinated politicians pretend professional expertise by pontificating on what they call ‘expansionary fiscal contraction’.

Instead of treading a path towards more employment and higher mass income through strengthening effective demand and reversing distribution from bottom to top, specifically in Germany, some strange alliance of business and politics has formed in order to realize an (even) larger export surplus. Foreign countries are to shoulder increasing net financial liabilities which are discredited as unsound debt accumulation at home. The external balance requested from the German government by the Act to Promote Economic Stability and Growth of 8 June 1967 has obviously degenerated into a non-committal formula.

Following the tenor of and wholly in line with pre-industrial mercantilism, the export nations strive for a trade surplus as a panacea to cure domestic unemployment. Thus, enhancing international competitiveness is globally considered as a silver bullet. Expectedly, the appropriate avenue to success follows a well-known route. Selling goods in a globalized world requires cheaper products, that is, lower wages! However, this recommendation fails to convince for two reasons.

If the pure cost argument would be correct, then, on the one hand, Bulgaria and Romania with their comparatively small remunerations should be flourishing exporting economies, whereas Switzerland, Germany or the Scandinavian countries could hardly vend anything abroad. On the other hand, the purpose of foreign trade has faded into the background. Over the long term, there is only one convincing reason

to deliver goods and services beyond borders. With revenues thus generated imports are paid – nothing more than that. Actually, this was the usual message in international economics until the advent of market radicalism. Today, such seemingly outdated lectures are scarcely delivered, which also indicates the loss of economic knowledge.

Permanent surpluses on the current account of all trading partners are impossible even from an accounting perspective and would imply, in clear language, demanding from the people to live permanently below their means. Incidentally, it is not very prudent to accumulate surpluses all the time. The fruits of hard work leave the country, and what the people get in return is mere printed paper which may even depreciate. Here it will do to recall the infamous Lehman Certificates of the most recent financial meltdown.

‘Lower wages lead to higher profits today, rising investments tomorrow and more jobs the day after tomorrow’, a thesis often promulgated in public dialogue. In fact, however, this mantra is evidence of economic incapacity, revealing false pretences of would-be experts as to the impact of either wages or investments on profit. Such deceivers do not deserve any confidence.

On Money

In common parlance, the term ‘economic activity’ is virtually always connected to the procurement and use of purchasing power. Yet, what is actually hidden behind the *Nervus Rerum*? In this regard, often a mere enumeration is presented. Accordingly, money performs three functions. It serves as unit of account, provides a medium of exchange and is suited for a store of value. What remains in the dark here is, on the one hand, that industrial economies based on the division of labour cannot operate without a numéraire since it is indispensable to formulate the nominal budget constraints, so expenditures have to be covered by revenues. Moreover, the (transaction costs saving) general equivalent must be scalable to quantify the *quid pro quo*. On the other hand, obviously the most marketable object is eligible as a store of value incorporating the highest liquidity. Established economics ignores the hierarchy of money functions and treats them as being placed on equal rank (cf. Helmedag, 1995).

Another example of sloppy explanations is found in countless diagrams where monetary expressions are mapped as prices, costs or revenues. Here, the axes are often denoted by certain symbols, but there is no indication to the standard which measures these variables. Many descriptions even suggest, sometimes in the subtext, that just as in ancient times the quantity of a real commodity, for example a precious metal, still circulates as socially accepted materialization of value. In this regard, however, contemporary conditions have drastically changed in comparison to the past. But quite a few economists have not really noticed this.

In the bygone era, quite disparate objects were used as a general means of consideration depending on the various cultural backgrounds. As different as the specific manifestations were in detail, their common feature always was to embody an intrinsic value linked to the amount of work expended for procurement. This is illustrated by the stone discs on the South Sea Island of Yap obtained via strenuous sea travels, the cowries in Africa (which are in reality not shells but snails) collected with much effort, or the gold and silver extracted from the earth crust by arduous labour.¹² In 'metallism' something serves as money that in itself is a physical asset. But the evolution from a face-value coin to token currency depicts the path to 'chartalism'. There, money finally has turned into a mere symbol that represents value because it is accepted by the members of a society for pecuniary purposes (cf. Goodhart, 1998).

The consequences of this process for the system cannot be overrated. Manifestations and volume of economic activities differ fundamentally from the past. Exchange between humans is now facilitated by money created without any appreciable production costs, but nonetheless epitomizing wealth in an omnipotent manner.

From this point of view, the comments regarding scarcity made at the beginning can partly be transferred onto the relationship of the people to the modern 'God amongst commodities',¹³ the provider of purchasing power. Sure enough, the individual may often be short of funds, but this deficiency can in principle be overcome as long as society has unexhausted resources.

Actually, there is no absolute limit to restrict the creation of credit money. First of all, this is nothing more than an accounting process: In a first step, the lender and the borrower extend their balance sheets; *pari*

passu the assets and liabilities of both participants increase. At that point, no side has become richer or poorer.¹⁴ Contemporary fiat money is nothing but a claim to a central or commercial bank, however documented, balanced by an equal liability of the issuer.¹⁵

In the moment when deposits are created, the asset position of the parties involved remains unaffected. This property differs from the gold standard, where the metal had to be available before it could be lent. This puts a natural limit to the volume of borrowing that has ceased to exist nowadays. The belief according to which banks would be nothing but financial intermediaries collecting deposits from some to extend them to others at a premium still characterizes the thinking of many, among them alleged experts. Here, it remains in the dark that the commercial bank *system* can create (book) money.¹⁶ Under the current circumstances, the money supply is largely endogenous and is not only injected into the economy from outside.¹⁷

In the gold standard, the precious metal represents financial assets as well as material wealth at the same time. In the credit money system of a closed economy, on the other hand, there is *summa summarum* no monetary net equity as claims and liabilities cancel out. For this reason, the relationship between saving and investing changed to the opposite. Unfortunately, professional economists have contributed little to the propagation of the by now reversed causation.

Actually, 'saving' refers to an increase in wealth because parts of the income have not been consumed in the period under review. Net assets, in turn, are composed of two components, *viz.* financial and non-financial assets. Conventionally, however, households do not invest, hence their additional property solely consist in the accumulation of monetary assets. Only corporations and the state acquire tangibles by investing. As, on the other hand, net financial assets are nil *on balance*, the accumulation of net financial assets coincides with the increment of non-financial assets (machines, buildings, etc.) in a closed economy. This is the correct meaning of the statement 'saving equals investment'. This proposition always holds in a modern monetary economy with bank deposits and double entry book-keeping.

But this identity provides no information regarding the driving force of events. Similar to borrowing, committing money to a project at first

does not at all affect the external assets of the agent. The acquisition of a tangible possession is accompanied by a congruent reduction in cash in hand—in the end an asset swap. Yet, the conversion of money here inevitably results in a rise of financial assets elsewhere. Thus, the dynamics of economic affairs ultimately depend on the size of autonomous expenditures. The two faces of investments, *viz. ipso facto* to be a diminution of financial assets and all at once the extension of real fortune, turns this discretionary demand into the decisive factor for the level of economic activity. Cause and effect, that is, the direction of causality, will be confused if saving is considered to be the basis and prerequisite for investing as it is common practice in orthodoxy (cf. Helmedag, 2012b).

However, the system-driving dynamics of debt, either to oneself or to others, entail a serious problem. Growing financial assets will not necessarily serve to (re)finance additional real wealth because credit institutions, all in all, do not need any deposits of the public to create new deposit money. It resides with the central bank in its function as the *lender of last resort* to provide cash for the private sector and the liquidity to enable private banks to fulfil the reserve requirements as well as the processing of interbank transfers.

What to do with the loads of money that necessarily correspond to the pile of debt? In fact, they are circulating to feed the financial markets until the bubble bursts, so that the value of paper securities periodically vanishes into thin air.¹⁸ Nonetheless, established economics has little substantial to say regarding the excesses of casino-style capitalism because of the efficiency market hypothesis that is still largely accepted. This perception corroborates the insights expounded on the preceding pages.

The Trait of Government Spending

The other gaping hole in established economics concerns the role and financing of government spending. Current textbooks do not even try to explain how government actually finances its spending, but rather presents the *IS/LM*-model with its upward sloping *LM* curve that implies a rise in government spending will lead to higher interest rates. That, however, is definitely not the outcome in a modern monetary economy.

Central banks are able to adjust interest rates in the interbank market on both the short and the long term ('quantitative easing').

So, how does a government, say the German, actually finance its spending? Whereas no literature—apart from Ehnts (2016a)—can be found that deals with institutional detail, the internet provides a quite clear-cut answer.¹⁹ The German finance ministry owns the 'Deutsche Finanzagentur G.m.b.H.' at Frankfurt am Main, which issues German government bonds. The government's account is based at and administrated by the Bundesbank, which is the German central bank. So the short- and long-term financing instruments are offered to a group of banks who are certified to buy them, using central bank money that they ultimately get only from one source: the European Central Bank (ECB). The banks' deposits at the ECB are called 'reserves', and it is these that are transferred to the government's account at Bundesbank.

A little bit of reflection will lead to the insight that since the governments in the Eurozone are borrowing reserves, which are ultimately from the ECB, and not deposits created by banks, the government does not compete with firms and households for loans! The idea, then, that the government's increase in borrowing will drive up the interest rate is hence purely imaginary. In reality, it is the other way around. When government spends, it transfers its deposits at the ECB to the accounts of the banks of the recipients of that spending, households and firms. The banks then credit the accounts of these payees and think about what to do with all those additional reserves. Since they borrowed reserves from the ECB to allow the government to spend in the first place, banks might use these reserves to pay down their liabilities. However, some banks might have loans from the ECB that mature later, and they would then offer some of those reserves on the interbank market. This will drive the short-term interbank market interest rate down! Now the ECB has to intervene to prevent the interest rate from falling below its target rate. It might sell a government bond to the bank in return for that excess liquidity.

In most other monetary systems, the central bank can buy government bonds in unlimited amounts, often directly from the government, for example, in Canada. This means that the Canadian government cannot 'run out of money'. It can always create new government bonds and sell them to the Bank of Canada, its central bank. The latter is forced by law

to buy those bonds. Hence there is no question of insolvency of the Canadian government. There is another route via which the government can make sure that it is perceived as solvent at all times. The central bank can purchase treasury bonds on a large scale. This has happened in most countries, including Canada, the USA and even the Eurozone. The central bank just credits the (bank) account of the seller, which can be done without limit. When the Treasury transfers interest to bond holders, some of it now goes to the central bank. This payment is booked as a profit and will be, often in full, returned to the Treasury! Nevertheless, most macroeconomics textbooks address fiscal sustainability, offer formulas to calculate which debt levels would be sustainable and sincerely care for future generations that one day have to redeem our debts. Yet, that the successors also inherit the treasury bonds for some reason never made it into the textbooks.

Why, then, is government not facing the same budget constraints that bind firms? And if insolvency is no threat, would that not inevitably evoke enormous expenditures causing hyperinflation? But the evidence in Canada proves that there is no such necessity. Hyperinflation has not been a problem for Canada, nor depreciation of the exchange rate or other sorts of monetary instability. So, a sovereign nation with its own currency can have an institutional setup that allows the budget that was passed to be financed and executed. That seems a very clever arrangement for the functioning of democracy. The opposite case is Greece, where people decided in a referendum that they don't want further cuts in government spending and hikes in tax rates, but had to suffer them anyway. Why? Because the Greek government is not free to spend what the budget says it should. This status is usually either associated with a state within a nation committed to a balanced budget and, if unavoidable, needing to borrow money from the private market, or with a nation that is not independent.

A long time ago, colonies were taxed by empires, and thus forced to sell goods and services (sometimes people) or financial assets in order to get the currency required to make the tax payment. Mosler (2014) brings up the example of a society in what today is Ghana, where the British introduced a hut tax. If the owners of the dwelling could not pay the tax, their housing was burned down. How to get pounds? Work for the British

settlers. This setup, while barbarian in terms of morals, was fully functional in the sense of resource transfer. And this is what a currency is all about from the perspective of the state. Today taxes are not paid in goods, but, much better, in money, and the state has issued that money by directly purchasing things and services from its subjects before these pay their taxes. So, government spending comes first, taxation second. Hence taxes are not used to finance the acquisition of resources, instead they give an incentive to people to offer their goods and services as well as their labour services in return for the money that the state creates.

In Smith (1976 [1776], p. 312) this was already described at some length: ‘A prince who should enact that a certain proportion of his taxes should be paid in a paper money of a certain kind might thereby give a certain value to this paper money, even though the term of its final discharge and redemption should depend altogether upon the will of the prince’. Smith did well in describing the economy as a system, which means that it has systemic properties that are not obvious from the perspective of the individual. For instance, he stated two ‘economic laws’ that would be enshrined in capitalism. First, when the quantity of capital increases, real wages would rise. Second, with a higher remuneration, the population tends to grow, which in turn causes real wages to fall back again. This description of the system’s properties, while empirically refuted, is very far away from the modern macroeconomic models, where individual decisions determine the outcome of the economy and no economic laws of motion take effect. The present doctrine treats markets and the structure of the economy as given, and any interfering (government) institution seems at first to be a disruptive element so that any exemption to the rule needs justification.

Financial Stability

Markets don’t operate in a vacuum but are embedded in an institutional framework. Laws are required to warrant private property; a judicial system has to ensure that claims can be proven and disproven and that some creditors have a higher priority than others when it comes to bankruptcy. The resulting reflexivity is surprising, although fundamental. People

create institutions, but at the same time are influenced by them. The idea of an atomistic individual with a utility function that is independent from institutions and the rest of social reality, including other people, is a quite unrealistic fiction. During the sub-prime crisis in the USA, secondary markets in mortgages facilitated a certain kind of behaviour, namely, that of extending the derivatives to people who normally would not be able to afford them. Then the loans including the risk of default were offloaded onto buyers of the securities that were emitted on the basis of these instruments. Greed is something which is always there in human society. Thus, it is reasonable to build up certain institutions to safeguard society against ruin in the wake of financial excesses. To be sure, these endeavours are not always crowned with success, as the financial crisis has shown.

Banks have to be regulated to prevent them from ruining our economy. They can do that by giving loans to borrowers unable to repay later, often because they did not employ the resources that they acquired with borrowed money successfully. As Schumpeter (1934, Chap. 3) argued, banks are providing purchasing power to entrepreneurs, which then use it to acquire resources and hopefully make a profit so that they can service their debt. This process drives economic development, yet at the same time creates financial fragility. According to most modern models, the economy is in a steady state equilibrium, whereas for Schumpeter it is endogenously (inherently) unstable. As a result, different paradigms in the field emerged.

Recent macroeconomic models have relied on abstract notions about money, if it is introduced at all. The choice of a representative agent has not been very prudent when relevant discussions feature globalization, power and debt. In other words, models of the current vintage do not allow to discuss the problems of today because the issues are excluded by modelling choice. A promising new concept is what Ehnts (2017) calls the ‘balance sheet approach to macroeconomics’. It focusses on statements of the financial positions in order to understand monetary and fiscal institutions and culminates in the so-called sectoral balances. The fundamental identity reads:

$$(S_p - I) + (T - G) + (M - X) = 0 \quad (7.2)$$

S_p stands for private saving (private sector income not spent on taxes and consumption), I for investment, T for taxes, G for government spending and M and X for imports and exports, respectively. What the sectoral identity says is that a change in the stock of net financial assets, also known as net saving, of the private sector ($S_p - I$) plus that of the public sector ($T - G$) and that of the external sector ($M - X$) equals zero. At the background of this identity, which by definition always holds, we have the idea that total expenditure equals total income. It is impossible in a modern monetary economy that there is an expenditure without income. What I spend you earn, and what you spend I earn.

If in our economy there are some actors who regularly have an income that is higher than expenditure, there must be at least one other unit where the opposite applies. So, if in capitalist production for most companies net financial savings, also known as profits, are positive, there must be sources that spend more than they earn. In the national budget expenditures often exceed revenues. This shortfall, then, is 'functional', not pathological. We need a deficit spender in order to have surplus savers in the corporate sector. Another option allowing the private sector to rake in profit is the establishment of a current account surplus. Now the net spenders who enable the domestic private sector to net save are foreigners, which accordingly accumulate more and more debt. Can this process continue forever?

With this, we move to Minsky (1982, 1986), who dealt with questions of finance very explicitly. Minsky understood that assets of firms are funded, and that the financial structure matters. Assets promise yields, and one part of that expected gain comes from the supposed appreciation of the capital itself. This is very obvious when one looks at real estate. An investor is interested in the rent that is paid once the building is erected. However, another possible source of profit is the assumed increase in real estate prices, so that when the investor thinks about whether to invest or not the object's expected price is important. Chinese firms, for example, used to stockpile all sorts of raw materials because these prices tended to go up. Firms hence saw these provisions as an investment. Even better, the money spent on these supplies was not lost. Banks extended loans with the depots being accepted as collateral. Of course, credit to the private sector usually will not rise forever.

Textbooks macroeconomics neglects the role of asset price expectations and the business cycle. Schumpeter (1934), who was Minsky's PhD advisor, was correct: the nature of a monetary capitalist economy is cyclical. The capitalist system is characterized by permanent interactions between the varying level of economic activity and changing institutions. For instance, the US Glass-Steagall Act which divided consumer and investment banks since the Great Depression was informally abolished in the 1980s, when US bank profits were exceptionally low. The financial industry hoped that after the regulation's elimination profits would rise again, and their aspirations came true. The problem was and is that much of the lending goes into the wrong parts of the economy, taking resources away from the rest. Instead of directing resources to public infrastructure, the US financial system allocated them for the construction of millions of McMansions that, as it turned out later, many buyers could not afford. However, this did increase bank profits and hence the incentives set by 'the market' led to a socially inferior outcome.

This brings the final issue to the fore: distributional justice. With the publication of Piketty (2014), the topic was brought back into the economics discipline. Now it is possible to talk about inequality also in the context of macroeconomics, where households have the choice of using their income to pay for consumption goods or to repay bank loans, thus destroying the deposits that were created when the original loan was extended. If banks cannot find solvent borrowers, then perhaps this is because the firms face too little opportunities for profitable investment and households do not receive enough income to be creditworthy. At the same point in time, there are many rich firms and citizens who do not need banks—they are 'well-heeled'. In such a situation, a lack of investment dampens economic activity. Then, gross domestic product is too low to establish a demand for labour consistent with full employment.

If the private sector does not want to (or cannot) spend, and problems like unemployment are (perhaps because of an international agreement) not allowed to be exported abroad via a constant current account surplus, then the sectoral balances eq. (7.2) shows the only way out of this impasse: an increase in government spending and a reduction of uncertainty so that firms and costumers are motivated to buy.²⁰ Firms should face a tax schedule which charges profits more highly, while the acquisition of

machines, real estate and other factors of production not only raises the value of the firm but reduces levies. Government should provide households with public services that mitigate everybody's risks of life, and hence people can spend their incomes more freely since they know that in hard times the government will put a floor under them. What should not happen is that the financial sector concocts the next bubble, once again pulling resources out of other, more productive uses, and then squandering them on things that might even be harmful to the public welfare.

Conclusion

The future must show whether or not, some fine day, the discipline will remember again its enlightening and critical function which the profession has well accomplished during its formation period. The revolutionary spirit back then, stimulated under the name Political Economy, research which explored the perspectives of the burgeoning new economic society, for better or for worse.²¹ Even in the now matured capitalism, there is really ample need for qualified answers to pressing questions. However, many policy suggestions from mainstream economists are based on inadequate analyses or are even driven by vested interests. Accordingly, one has good reason to be sceptical about the scientific quality of the usually recommended austerity programmes.

Notes

1. The first four sections draw on a discussion conducted in German. Cf. Helmedag (2015b), Haucap (2015) and Helmedag (2015c).
2. Since the outbreak of the 'Great Recession' in 2008, quite a few disapproving assessments of mainstream economics have been published. The criticism presented here does not capture all aspects and differs in some respects from other sceptical appraisals, for instance, Weeks (2014).

3. See the chapter by Jones in this volume on the use and measurement of utility and the assumptions behind the 'law of diminishing marginal utility'. Cf. also Barzilai (2014).
4. With regard to the following, cf. Helmedag (1994), pp. 15 ff.
5. Sombart (1916), p. 34, own translation from German.
6. Often, Adam Smith is invoked as authority for this opinion. However, in his magnum opus, the *invisible hand* is merely mentioned once. Cf. Smith (1976) [1776], p. 478.
7. Most remarkably, General Equilibrium Theory has failed to prove the 'law of demand' in general. Cf. Kirman (1989).
8. This point of criticism plays a major role in the book by Keen first published in 2001 (2011a).
9. In fact, full shop shelves suggest that vendors regularly set 'production prices' that is to say they increase costs per unit by a mark-up, whereas customers determine the quantities sold. Regrettably, a theory regarding origin and magnitude of the 'trade margin' is wanting in the usual assortment.
10. Regarding the rise of the now dominant approach, cf. Bharadwaj (1994). This has happened in spite of early warnings from the horse's mouth: '... the proportion of supply to demand, or demand to supply, has become almost an axiom in political economy, and has been the source of much error in that science'. Ricardo 1970 [1817], p. 382.
11. For another breakdown of the profit equation that especially unveils the dependency on real unit labour costs, refer to Helmedag (2016). Section VII resumes this line of thought.
12. Cf. Helmedag (1994), pp. 56 ff. for a summary.
13. Marx (1974) [1859], p. 132, own translation from German.
14. Yet, the debtor will be liable not only to repay the sum borrowed at a later time from his assets or income but also interest due.
15. Accordingly, the central bank will be the only institution to show the circulating cash on its liabilities side. For a sketch of the history of money and a brief description of deposit money creation, refer to Helmedag (2013) or Ehnts (2016a).
16. Even with a reserve rate of 100% banks may create unlimited amounts of deposits. In this case, the central bank is forced either to close them or to provide the reserves necessary. Since central banks are also responsible for financial stability, they probably choose the latter alternative.
17. According to Keen (2011b), the exogenous money supply is the key weakness of prevailing macroeconomics.

18. Incidentally, a more detailed examination raises doubts about the deep-seated belief that a central bank might combat inflation either by reducing the money supply (formerly) or via hiking the interest rate (presently). Cf. Helmedag (2009a, 2009b).
19. See Wray (2012) for an exposition of government spending in the US and Forstater (2006) for a discussion of history of economic thought.
20. This was also what Keynes argued during the Great Depression. Cf. Ehnts (2016b).
21. Revealingly, the great classical theorists Smith, Ricardo and Marx, in conclusion, shared the view that the rate of profit declines in the course of development, and accumulation thus comes to an end sooner or later.

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