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## EUROPEAN TRANSITION INTO A SOCIO- ECOLOGICAL MARKET ECONOMY

**Abstract:** European transition into a Socio-ecological Market Economy is mainly hampered by the undue large financial sector and the target of high economic growth. A turn into a low growth equilibrium is bound to a reduction of financial, man-made and natural capital. Capital saving innovations and considerably higher qualification can contribute to more employment, a higher wage quota, more final demand and less export surpluses. Lower capital inputs protect nature and augment saving surpluses, which should be transferred to economically less developed European countries and the Third World as real instead of financial investments. Europe 2020 Strategy and Horizon 2020 contain several elements for a transition, but they are very reluctantly implemented. By a vigorous transition into a Socio-ecological Market Economy Europe can augment its global competitiveness and regain its role as a global economic player.

**Key words:** *Socio-Ecological Transition, Europe 2020 Strategy, Horizon 2020, Capital Intensity*

### 1. ECONOMIC CRISIS AND SOCIO-ECOLOGICAL MARKET ECONOMY

European economic crisis has suddenly interrupted a fairly good economic development, wiped-out nearly all economic progresses since a decade (1) and caused a set-back of several advances towards a Socio-ecological Market Economy (SEME). After the introduction of the Currency Union Europe was firmly determined to establish a socially and ecologically sustainable economy (2) and implemented – although the Lisbon Strategy was rather deceiving – a variety of corresponding measures, which made Europe the global forerunner in developing a SEME. Following the crisis the European Union introduced the Europe 2020 Strategy and its collateral programme Horizon 2020 for re-activating and strengthening initiatives for longer term sustainability. In different respects Europe 2020 is regarded as a

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strategy to overcome simultaneously the economic crisis and accelerate a transition into a SEME, which should also assure global economic competitiveness. Programmatically, the European Union intends to create a “new economy” (3), by which it should regain and enlarge its role as a global player. But Europe has not succeeded to introduce a coherent framework to tame the financial sector and to adopt a strategy for turning into a low growth equilibrium, which both are constitutive for a SEME.

In contrast we will argue that European economic welfare can be assured by low growth, if prevailing high capital intensity will be reduced by a smaller financial sector and a real capital saving productive system. The actually and in the future high saving surpluses should not be transferred as financial aids to economically less developed European countries, but for real productive investments there and partly for real productive investments in emerging countries instead of prevailing financial globalization.

## 2. CAPITAL INTENSITY AND LOW ECONOMIC GROWTH

European economic policy intends to augment economic growth by higher labour productivity derived from higher capital intensity (4). It follows the classical idea that more capital equipment for a working place augments labour productivity and by this economic welfare. But it neglects the profit squeezing effect of permanently increasing capital intensity. The visible consequence of the profit squeeze in the real sector is the growth of financial investments, which in turn crowds out real productive investments. Furthermore, low productive investments augment unemployment and public deficits, which can only be marginally reduced by export surpluses. The largely unproductive financial investments are a burden for the productive sector, which itself reduces labour cost to compensate for high costs for financial and real capital. Growing total capital intensity in Europe and the returns on real and financial capital reduce wages and domestic final demand. A further reduction of wages would aggravate European economic development and the remedies are not lower wages, smaller public budgets and higher export surpluses, but the reduction of total cost for capital inputs.

From a macroeconomic perspective, total capital inputs are the sum of financial capital, man-made capital and natural capital and productive capital is the sum of man-made and natural capital. Therefore, a reduction of financial capital would contribute to lower capital intensity and reducing man-made and natural capital would give room for higher wages and final demand without reducing the profit rate on the reduced stock of productive capital. Consequently, a lower stock of productive capital would increase economic sustainability, which is mainly defined by a sufficient profit rate. It augments also social sustainability to the extent that lower real capital inputs increase employment. And finally, lower real capital inputs reduce natural capital inputs and by this ecological sustainability. Reducing total capital inputs instead of reducing wages augments simultaneously economic, social and ecological sustainability.

A European transition into a SEME is confronted with the growing dominance of the financial sector. European high saving surpluses are a consequence of the uneven income distribution. Together with up-stream savings they have created a (speculative) financial system with high money interest rates, which increases the profit squeeze in the productive sector. In a first view, low real economic growth in Europe seems to be in favour of the above sketched sustainability, because it reduces man-made and natural capital inputs. But European economic growth is far from equilibrium, visible in high unemployment and the increase of purely financial wealth. Saving surpluses and easy money from central banks accelerated financial wealth inflation with minor productive effects. Total economic wealth in Europe consists mainly of high financial wealth and low consumption. Under these conditions not the real, but the nominal value of the productive system increases and reduces wages and employment. As a result the European economy has a low “consumption productivity of total capital inputs” as well as a declining employment efficiency of the productive system. Evidently, the remedies are not less consumption and employment, but a smaller financial sector and a reduction of productive capital inputs. As productive capital inputs determine real economic growth, a reduction of man-made and natural capital paves the way to low growth equilibrium.

The transition into a SEME is bound to a step by step reduction of real investments and a higher consumption-investment relation. During a transition the volume of total output declines and the relative volume of consumption will increase if the consumption-investment relation increases more than the output-investment relation. In any case, the higher consumption-investment relation needs a change of income distribution towards wages, which depends on higher employment and/or higher wages per hour. If labour is remunerated according to its productivity and the latter does not primarily depend on the reduced capital intensity, but on higher qualification, wages will augment without a parallel increase of capital inputs. This implies that labour productivity will decline because the volume of output will be reduced by lower capital investments. And capital productivity can – depending on the output-capital relation – be increased by a politically targeted capital saving innovation system. Higher qualification augments the volume of work executed per hour and reduces for a given volume of output labour productivity. And capital saving innovation augments its productivity for a given physical volume of output. This is in conformity with the result that a transition into a SEME is bound to a higher growth rate of capital productivity than that of labour productivity (5).

The Europe 2020 Strategy has introduced by the flagships Digital Agenda and Resource Efficient Europe several capital saving initiatives, but has not questioned the overall strategy to augment economic growth by higher capital intensity. Moreover, the Europe 2020 Strategy has not strengthened the regional dimension beyond existing Structural and Cohesion Funds. Economic disparities between Member States have increased since the financial crisis. A reduction of large disparities needs more productive investments in economically less developed Member States instead of financial help packages with no significant employment effects.

### 3. CAPITAL ACCUMULATION, INNOVATION AND QUALIFICATION

The key for a transition into a SEME is the augmentation of total capital productivity. Although a vigorous reduction of financial capital is a precondition for a transition we concentrate here on the reduction of productive capital. European economic policy has to refuse the prevailing strive for permanent high economic growth by higher labour productivity via higher real capital intensity. But one has to be clear that this would be a refutation of the classical concept on which traditional economic welfare is based. Historically, high economic welfare was gained by growth of the capital stock, which augmented also employment, wages and consumption. But we are at a turning point, because real investment opportunities in Europe shrink, social problems increase and ecological limits appear. Certainly, the “end of the world is not at hand” (Solow), but also in the past ever augmenting real capital accumulation run into difficulties. After longer periods of increasing capital intensities they had to be reduced by “creative destructions” for new technologies and innovations as a precondition for new economic growth. It was mainly the economic profit squeeze, formerly without reference to ecology, which needed temporary reductions of real capital (6). Approximately the same destructions are needed in short run business cycles, in the Great Crash and in the recent economic crisis. If we look further, high economic growth after great wars have their roots in disastrous destructions of economic resources. To prevent over-accumulation and the following crisis, which is inherent in our “economic machine” (Keynes), economic growth has to be tamed. This is only possible through a capital saving technological progress, i. e. a transition to lower capital intensity.

European growth policy does not consider the positive consequences of a capital saving technical progress. On the contrary, it follows neoclassical growth theories, which always support capital augmenting accumulation (7). They neglect longer term diminishing returns, which result in a falling profit rate in every type of growth models (8). Then, all advantages of a large real capital stock cannot be earned by consumers. The lack of final demand can only temporarily be compensated by higher public demand and export surpluses. Finally, it is the decline of profitability of over-accumulated real capital, which needs for a given level of output capital saving innovations and higher labour inputs as a compensation. In Keynesian growth models the supposed constancy of capital productivity can only be assured by increased labour inputs. Precisely these additional labour inputs prevent the decline of capital productivity and reduce the capital-labour relation. In neoclassical frameworks permanent growth of capital intensity also results in labour augmenting technical progress (9). Counterbalancing the decline of returns on capital cannot be derived from price substitution, but needs a politically targeted innovation system.

Innovation has become a wizzleword, increasingly irrespective of its positive or negative societal consequences. For example, “financial innovations” have considerably contributed to the recent financial crisis and “planned obsolescence” is not to the advantage of consumers. To enhance the transition into a SEME we have to

target innovations towards higher capital productivity and not to higher labour productivity. Increasing capital productivity cannot be accomplished by higher capital intensity, but only by higher labour intensity. As innovation always springs from human brains, more labour – both in terms of hours and qualification – is needed so that innovations are labour augmenting. In an innovation-oriented economy labour plays an increasing role (10). If human resources are largely targeted to prevent a decline of capital productivity real production becomes a new character and material investments lose of importance, i. e. real capital intensity declines. This “scientification” of the productive system is in accordance with trends to a service economy and dematerialization (11) and has above all distributional consequences. If labour and capital are remunerated according to their contribution to the total output the wage-profit relation has to increase. During the transition into a SEME the wage quota and final demand increase and economic growth reduces without reducing the profit rate on the reduced real capital stock. And “scientification” assures international competitiveness, because prices of traded commodities can be stabilized by lower capital costs instead of lower labour costs.

The most convenient way to augment real capital productivity is to slow down capital accumulation, which augments marginal and average capital productivity and at the same time reduces the rate of real macroeconomic growth. But whatever the strategy for low growth is, there is the question of the total volume of work. Traditionally, it is measured in hours without reference to quality of work. In face of the enormous educational investments since decades, the executed volume of work has to be measured both in time and quality and rough estimations show, that qualified work furnishes about the double volume of work than simple work (12). Looking at the formal economic sector – without referring to growing informal and unpaid work – public and private qualification may have augmented the volume of work considerably and the relation between labour and capital may have risen. As higher qualification is mainly mirrored in salary schemes the volume of wages per hour has also risen, but much less than the nominal value of real capital equipment. The increase of nominal capital intensity is the result of the growth of the financial sector. In physical terms, the relation between labour and real capital may have risen by qualification. Although employment in hours has grown less than total output, the increase of the volume of work may have surpassed the increase of physical productive capital inputs.

Europe 2020 and Horizon 2020 stress the importance of higher qualification both for getting a job as well as for more R&D and innovation. In Horizon 2020 Excellent Science should augment global scientific competitiveness, Industrial Leadership industrial competitiveness and Social Challenges should alleviate from burning societal problems, which can be considered as market failures. All three mutually reinforcing priorities have some capital saving and labour augmenting effects. But estimations for the year 2030 show that the combined effects of the three priorities augment economic growth with low employment efficiency (13). Therefore, Horizon 2020 in its present configuration contributes only marginally to a transition into a SEME.

#### 4. A NEW REGIME OF ACCUMULATION AND INCOME DISTRIBUTION

European economic policy outlined in the Europe 2020 Strategy aims at a “new economy” by modifying reluctantly the content of economic growth, but it does not question growth itself. By discussing capital saving innovation and labour augmenting qualification we found that Horizon 2020 has some potential for a turn into a low growth path. But even these moderate contributions are neutralized by the macroeconomic concept of Europe 2020, which intends definitely to augment economic growth. Restricting final demand is combined with no reduction of the financial sector so that “financialisation” should assure higher economic growth. As we concentrate here on real economic growth we have abandoned the price-dependent circular relation between capital and labour in favour of investigating productive capital accumulation. This corresponds to post-keynesian growth models, which refuse production functions, the most curious of which are Cobb-Douglas versions. We considered capital and labour separately and split up productive capital in man-made and natural capital and came close to Schumpeter’s view that only labour and nature are productive (14). Then, man-made capital is just an intermediary transformation instrument between nature and final consumption, which itself is a combination of nature and labour. Keynes, who did not directly refer to nature, goes further and had sympathy for the labour value theory (15), which considers only labour as productive. In face of the strongly increasing importance of innovation and qualification, which are intimately connected with human activities and its creativity, economic welfare increasingly depends on labour. Certainly, both man-made and natural capital play an important, however declining role in a SEME, visible in a step by step reduction of real capital inputs.

A transition into a SEME needs a new regime of capital accumulation, income distribution and economic growth. The new regime is possible by way of a “scientification” of real production. Already in the Lisbon Strategy the knowledge-based development had priority and is now reinforced by Europe 2020 and Horizon 2020. Insofar, on the microeconomic level European economic policy goes programmatically in the right direction. The reluctant steps towards a SEME are mainly neutralized by the macroeconomic policy for higher economic growth instead of structural changes, which ultimately concern the distribution of the capital stock and the resulting income distribution. In fact, the distribution of productive and financial capital and the demanded rates of profits and money interest absorb too much of the total income. The remuneration of labour is – enhanced by bargaining powers – not remunerated according to its continuously increasing contribution to overall real production. During a transition income distribution has to be changed towards wages and the new low growth equilibrium can be assured without reducing the profit rate on the reduced real capital stock.

The new regime is bound to higher investments in education, research and innovation, i. e. in “human capital”. European educational policies intend to increase spending in the public and private sector, but actually in most countries such in-

vestments are reduced in favour of financial investments. Moreover, reflections of the traditional concepts of qualification are urgent and this may lead to a new paradigm of education (16). It is not primarily material equipment, but educational investment in people at all levels of the economy from which is derived societal welfare. Innovation in material and immaterial equipment produced by highly qualified workers is just a means for higher welfare. It is the enhancement of the people themselves and their personalities on which depend a peaceful human development, which is a precondition for economic, social and ecological sustainability.

## 5. REAL CAPITAL GLOBALIZATION INSTEAD OF FINANCIAL CAPITAL GLOBALIZATION

Prevailing European economic crisis, which may continue for at least a decade and is a set-back in its role as a global player, comparable to the set-back of Japan since the 1990ies (17). To play an important role in the coming multi-polar global economy, Europe's chance is a transition into a SEME. It reduces imports of natural resources and energy from the Third World and augments employment by higher qualification and innovation without high economic growth. During the transition into a new regime of accumulation and distribution saving surpluses, including up-stream savings have to be transferred above all to economically less developed European countries for real investments instead as financial aids. Remaining saving surpluses should be transferred to the Third World also for real investments and not as financial investments. Europe has to develop its own financial markets to join the coming multi-polar currency system (18) and to globalize its productive activities. The dominant global role of Great Britain until the First World War was mainly based on its real investments in the Commonwealth from which it derived its financial strength (19). The change of global leadership to the USA also went by large foreign real investments and later by immaterial investments, including the US economic model in real production. Certainly, the global dominance of the Dollar stabilizes the global role of the US economy, which is only possible by increasing outsourcings and vast international financial investments.

Europe is proud to be the biggest trading block in the world (20) and still adheres to the old idea that more trade is always advantageous for all and reduces global inequalities. In face of the global similarities of production technologies it is the globalization of production, which augments Europe's role as a global player. During a European transition into a SEME more sustainable technologies can be exported and less natural resources imported. By this, increasing disequilibria in international trade can be reduced. The chances for developing countries to implement their own socio-ecological development strategy would increase without being disturbed by the prevailing financial globalization. Europe's chance to become a global player does not lie in a competition with economies with high capital intensity, but in a vigorous transition into a SEME.

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