

Public Funds as Capital

Hegelian Dynamics on a Global Scale

Hardy Hanappi
TU Vienna, Economics
Argentinierstrasse 8
A-1040 Vienna, Austria

hanappi@econ.tuwien.ac.at
<http://www.econ.tuwien.ac.at/hanappi/>

Paper contributed to EAEPE Conference 2007 in Porto, September 1 - 3.

New research area W: Global Evolutionary Political Economy.

Keywords: Global political economy, economic policy, economic history

Abstract

The underlying idea of this paper is to revitalize a certain vision of the role of the capitalist mode of production in the development of the global political economy. Two ingredients are essential for this vision:

- (1) Capitalism has a well-defined place in the historical development of the human species, i.e. a necessary emergence and a necessary end. This view is basically owed to Karl Marx.
- (2) But the mode of production that historically succeeds capitalism is not simply to be viewed as an alternative organization of society, there is a more complicated dynamics at work – some elements vanish, others survive in changed forms. This view is owed to Marx' teacher Hegel who summarized it by the use of the German verb 'Aufhebung', which has two opposing meanings: to abolish something and to preserve something. Classical dialectics, to which Hegel refers, thus is a method to disentangle the evolution of countervailing forces.

Global evolutionary political economy has to make the theoretical aspirations of this vision explicit. To contribute to this task first the essence of current global capitalism has to be identified (Hegel's thesis). Then the contradictory forces necessarily provoked by its processing have to be characterized (Hegel's anti-thesis) to arrive at a vision of a possible new mode of production (Hegel's synthesis). It has been Karl Marx who insisted on the view that the transition from one mode of production to the next usually has been a temporarily rather compressed outbreak of a social revolution and not a slow modification of existing habits. If this is correct, then the role of visions becomes overwhelming¹ – and even modest theoretical attempts - like this paper – to arrive at more informed visions are valuable. As a striking example of how acute the provision of an overarching theoretical vision is, the fact that public funds - in particular funds administering mainly money from workers in industrialized countries – have developed into the most important players in international finance is discussed. Is this a mechanism with which the 'historical mission' of capital will survive?

¹ If the short time available during a revolution implies less time for theory guiding actual experience, then the revolutionary forces are under pressure to trust into visions.

Introduction

The paper proceeds in three steps: First the sketch of a model that incorporates the essential features of contemporary global capitalism is presented. Though some ideas much carefully worked out by mainstream economics are used, the major thrust of the model is to integrate those processes that are central in reality – and usually ignored or only considered in isolated contexts in vulgar economics. Second the processing of the model is used to interpret currently observed anti-capitalistic economic forces. In particular the constraints hit by the very processing of capitalism are investigated to find out what could be mitigated by which modification of the form of a sub-process and what would need radical abolishment and eventual substitution by new processes. The third - and certainly most speculative - part considers how the setting of currently emerging actors in the global political economy could lead to a new feasible mode of production, a new synthesis.

Thesis: The essence of global capitalism

The dynamics of the world economy are characterized by an enormous strengthening of the links, which tie all parts of socioeconomic relevant processes together. An essential theoretical task therefore is to provide one core model of the global economy that is capable to address long-run global questions.

A first step towards such a core model is to identify the most relevant processes and the variables by which they can be represented – and in doing so to discard less relevant processes and variables. From the point of view of evolutionary political economy the most important process is the ***process of capital accumulation***. It indeed is also the starting point for planning most actual political and economic actions for the relevant players in the world economy. Capital accumulation, of course, is not just the simple process of summing up investment expenditure that mainstream growth theory still proposes. It consists mainly of the following five elements:

- (1) Technological innovation that in non-regular pushes increases labour productivity in a sector.
- (2) Changes in the dimension and in the content of the vector of quantities of final consumption.

- (3) Social innovation, i.e. emergence and exit of forms of organization and institutions, which follows, accommodates and enables the former two processes.
- (4) Demo-economic feedback reflecting the changes brought about in the first three processes.
- (5) The evolution of a framework of financial institutions, which allows for the embedding of profitability in a larger setting of financial flow management.

Since all of these topics clearly transcend the usual divide between microeconomics and macroeconomics a clear-cut analytical treatment via the assumptions of representative agents is not useful. It rather has to be resorted to heterogeneous agent simulation techniques to model these processes. Since the details of such modelling would go beyond the scope of this paper only some (plausible but preliminary) relationships are suggested. Besides these core dynamics the model follows some Keynesian tracks in using several accounting identities. A price system driving markets towards reasonably small build-up of inventories is assumed – but contrary to mainstream economics this problem does not occupy the centre of the stage. Contrary to the usual macroeconomic treatment labour markets are not assumed to work like all other commodity markets. The permanence of unemployment clearly signals that there is an asymmetry of market power at work, which lets unemployment rates move within a certain range. Unemployment must be higher than a minimum level to assure that the pressure on wages exerts enough cost reductions, and on the other hand it must be lower than a maximum level to avoid too strong losses in purchasing power and thus revenues. It therefore is no surprise that in most OECD countries wage bargaining is a rather centralized, highly institutionalized, political process.

This argument shows that an important sixth element characterizing contemporary capitalism has to be added. It is not so much to be considered as active behaviour of the protagonists of capitalism's historical mission, like (1) (2) and (5), and it is not just an accommodating consequence like (3) and (4). It is a defensive institutional reaction against the upcoming forces of the global labour movement. Centralized institutionalized wage bargaining tries to keep the capitalist engine going despite the long-run increase of the bargaining strength of the labour movement.

- (6) An important last element to be considered thus is the continuously undulating struggle over income distribution and unemployment rate. The classical formulation of this process in economic theory has been Richard Goodwin's growth-cycle model , but

it envisages only a national economy and its highly stylized assumptions call for several crucial steps to substitute exogenous variables by sub-models. The important contribution of Goodwin's model to the current model framework is that it translates the developments of some important macroeconomic aggregates into cyclical movements of income distribution and unemployment rate.

One of the most important questions with respect to the three processes is their timing and relative speed. Whereas (1) and (2) due to their dispersion over many agents and economic sectors in the aggregate might be approximated as a continuous flow of pulsations with smaller amplitudes occurring more often than large ones, process (3) definitely has a lower frequency and the swarming of organizational restructuring - even on a global level - has historically been concentrated in rather short time slices². The interdependence between (1) and (2) on the one hand and (3) on the other hand has been extensively studied by many scholars of political economy. The point of view taken in this paper suggests that (3) is initiated by contradictions produced by the very working of (1) and (2). But while in the one direction the contradictions building up due to (1) and (2) at certain points in history pass some thresholds of organizational stability and blast the old setting, i.e. (3) occurs, in the other direction the social innovations possible after that detonation of (3) create conditions that enhance (1) and (2) - though with some changed underpinnings. Demo-economic processes too clearly are slow processes as compared to (1) and (2). Nevertheless their speed has increased recently: While classical economists assumed that a generation is typically 25 years and changes in their reproductive behaviour (except those forced by wars, diseases and famines) take several generations to work out, nowadays families all over the world react rather quickly to changed socioeconomic conditions. Process (4) thus might be assumed to be faster than (3) though slower than (1) and (2). Common knowledge has it that financial markets are reacting incredibly quickly; but to enable enough trust to support such speed the institutional framework of finance must be rather rigid and constant in the long-run. In principle the after-war period has only seen two and a half regimes: the Bretton Woods system, the flexible exchange rate system till the nineties, and the Dollar-Euro-Yen dominated system after the introduction of the common currency in Europe³. Process (5) therefore is

² This is the background for Karl Marx' famous remark that 'revolutions are the locomotives of history'. In the 19th century - quite contrary to today - the railway was a synonym for speed.

³ Many economists would shy back from the proposition that the latter is indeed a new financial regime. Contrary to that view one could insist that due to the close connection between global political structure and financial institutions it is justified to assume that European unification coinciding with the breakdown of the Soviet Union give reason enough to insist on the emergence on a new set of financial institutions - at least half ways.

rather slow two, faster than (3) but slower than (4). Finally process (6) seems to work on a somewhat similar scale as (1) and (2), but opposed to these it reacts at discrete points in time (usually once a year) on the continuous developments on the former. Wage setting thus often is an explicit, power-relation weighted reaction on productivity and consumption developments and in the sequel leads to income distribution and unemployment rate. To determine relative power of labour movement and capitalists is not a trivial task, wage struggles on national levels have to be ‘aggregated’ via global exchange rate struggles taking place as strategic games of global players. It is rather evident that prima facie a rich country’s labour class might turn out as a poor country’s exploiting class as soon as exchange rates are taken into account. The impact of this argument on the time structure is crucial: Extended Goodwin models might provide yearly approximations for continental developments (North America, Europe, Asia, Latin America ...) but to understand continental interaction a separate - somewhat slower - framework linking (at least) political actors and transnational firms in a game theoretic model is necessary.

Given these propositions some further specification is possible. Making use of the fact that the global economy is a closed economy, i.e. total exports necessarily are equal to total imports, it is immediately clear that international division of labour enhanced by world trade appears as productivity gain. The *global demand side* thus is

$$Y_t^D = C_t(W_t^d, \pi_t^d) + I_t(W_t^d, \pi_t^d) + G_t(T_{t-1}^W, T_{t-1}^\pi, \bar{G}_{t-1}).$$

That is total nominal demand in year t (Y_t^D) is computed as total nominal consumption (C_t) plus total nominal investment (I_t) plus total nominal government expenditure (G_t). The first two components again depend on disposable wage income (W_t^d) and disposable profit income (π_t^d)⁴. Nominal government expenditure (G_t) mainly depends on taxes collected during the last year, taxes paid by wage earners (T_t^W) and taxes paid out of profits (T_t^π); but there also is an autonomous element set by policy (\bar{G}_t). As input output analysis immediately shows this accounting identity – amended by some behavioural assumptions – only includes value added and tells nothing about intermediate flows and the necessary stocks involved.

⁴ The Kaldor type consumption relationship is well-known; to have wage income as an argument for investment demand refers to the increasing needs of wage earners to build up human capital stock. To do so investment in physical capital stock becomes ever more important.

Nominal government deficit is computed as government expenditure minus government income, which in turn depends on the differences between total wage and profit income and disposable wage and profit income.

$$BD_t = G_t(T_{t-1}^W, T_{t-1}^\pi, \bar{G}_{t-1}) - T_t(T_t^W, T_t^\pi)$$

Disposable income is just nominal income minus taxes:

$$W_t^d = W_t - T_t^W$$

$$\pi_t^d = \pi_t - T_t^\pi$$

By definition total nominal profits is the difference between total nominal revenues and total nominal cost. The latter basically consists of wage cost and capital cost, which is the interest paid with interest rate r_t^C for borrowed capital κ_t .

$$\pi_t = R_t - W_t - r_t^C \cdot \kappa_t$$

This standard accounting scheme thus implies a difference between *industrial capitalists*, which achieve their profits by maximizing the just defined difference, and *finance capital*, which chooses the most promising industrial capitalists and offers them finance at the highest possible interest rates. Movements of the interest rate thus to some extent reflect the struggle between these two types of capital. On the other hand finance capital basically earns its profits by multiplying the intermediated finance volume with the difference between interest rates on credits (r_t^C) and interest rates paid for savings (r_t^S). Its goals are therefore to have high interest on credit, low interest on savings and – conflicting with these two goals - a large volume on which to apply the difference between the two rates. In pursuing their goals finance capital as well as industrial capital evidently may engage in informal coalitions with national political administrations, since successful election often depends on satisfying economic performance.

Up to this point mostly accounting equations and definitions have been introduced. The most important processes, namely those encapsulated in (1), (2) and (3) have not been dealt with. Taking a look on what mainstream economists call the *supply side* the usual device to describe it is a *production function*. Given certain amounts of workers with appropriate qualifications, certain amounts of capital, certain amounts of public infrastructure and certain expectations of possible demands, so-called *entrepreneurs* are thought to be able to make up a schedule of outputs of a commodity for different mixes of these resources. In particular they

should be able to figure out how production processes and products, which never existed before might succeed. It surely is rather daring to call the vague guesses that are possible under such circumstances a *function*. Nevertheless the success of capitalism, its evolutionary force since the Renaissance has to be admired: At the price of failure of uncountable attempts to innovate, of political disasters and two world wars lead also for economic dominance it has produced labour productivity and democratic civilization at never attained levels. The spreading of successful innovations, including social innovations, has proved to be stronger than the recurrent drawbacks – so far.

Anti-thesis: Evolving contradictions

Indeed a useful picture of the simultaneous search for new techniques, new commodities and new organizational forms certainly can only be approached by mimicking typical behaviour with the help of heterogeneous agent based simulation. Taking a look at the development of technical coefficients of input-output structures of OECD countries shows how hard it is to predict possible future routes of process innovations. Even worse is the case of product innovations, which indeed change the dimensions of the utility space, process (2). But looking at the global picture instead of most advanced OECD countries some simplifications are evident: The needs of the overwhelming majority of the world population are still basic enough to be accurately defined – not much need for new dimensions. There is demand for well defined goods and services, but it is not able to pay. This is the ***first of the evolving contradictions***.

An important part of process (3) concerns the recent changes in the structure of production units: The share of transnational companies (TNCs) in overall production activity has been increasing tremendously. This has important consequences for the behaviour of large other players like national governments as well as for the behaviour of the smallest organizational units, the households of the employees. The general picture shows that TNCs today easily are able to minimize tax payments and thereby hurt national governments, which in turn are forced to cut expenditures – mostly by letting infrastructure deteriorate, which is not important for TNCs. This, of course, has consequences for local SMEs, which still provide most of the jobs, as well as for the households themselves. To avoid a downward moving circular dynamics governments are forced first to sell public property and second to build up public debt. This is a ***second contradiction***.

The *third contradiction* comes with process (4). The industrialized countries currently witness a rather strong negative feedback from economic conditions to demographic growth: The changing family structures imply changing incentives for having children leading to rapidly aging societies. But these developments are not to be found in similar strength in other parts of the world. The logical consequence would be a tremendous increase in migration flows to countervail demographic divergences and to adjust population structure to the structure necessary for economic and political reproduction. But such developments usually run counter the interests of existing power elites in the developed world - they rather would support rigid military rulers of impoverished countries to ensure their help to stop migration. This currently emerging third contradiction is extremely explosive in the mid-run; it is just the tip of the iceberg, which is currently visible.

Finally the recent decade has brought to mind that the traditional perspective of unlimited capital accumulation implying unlimited growth of the number of commodities at ever less labour time spent to produce them is not the ultimate icon of progress. It also implies unlimited growth of waste, unlimited destruction of several pivotal parts of the global environment, and last but not least unlimited alienation. The constraints hit by the growth processes of several industries – which these industries need to survive with what they call reasonable profit rates – are becoming numerous and dangerous for the human species. This is *contradiction four*. Global climate change induced by emissions, water shortages, hitherto unknown viral epidemics, religious wars accompanied and even supported by hi-tech media are looming in the background to remind political economists how useless complaints about market failures are, how urgent a new vision is needed.

Synthesis: Towards a new mode of production

These emergent contradictions lead to the questions of synthesis: How can capital accumulation be superseded, i.e. which functions performed by capital should be maintained, and which parts should be substituted by new social forms of global organization?

It is hard to determine which constraint – and only four of the more prominent ones have been listed above - will be hit hard enough first to induce severe societal reactions. What seems to be rather obvious is that whatever it is, it will be international finance, which will react immediately. International finance institutions can be interpreted as a seismograph for turmoil in capital accumulation: whenever signs of difficulties in the accumulation process along a certain avenue appear on the horizon capital flows react quickly, sometimes even overreact

and thereby aggravate the danger. Given the seriousness of the approaching crisis it is likely that the world will be confronted with a veritable financial crash – followed by the usual contraction of financial ties all over the globe. Up to a certain degree this is a healthy reaction – the future mode of production should have sensors too to indicate accelerating misallocations of resources or other dangerous trajectories. But the signals coming from these sensory institutions should not fire back on sound structures of the global political economy in the way they do today. Therefore what is needed is a decoupling of the extraordinary skills to judge development opportunities given in the centres of international finance from the disastrous real economic consequences, which managers of actual economic activities take when they solely aim at maximum profit rates of their business. And, of course, the content of what a *development opportunity* is has to be put under democratic control of the concerned population. Blueprints for international institutions along these lines have to be further developed.

As already implicitly stated, capital accumulation needs to be transformed into growth of social value. While growth of privately owned property titles at some stage necessarily leads to the growth of some physical products, social value is measured in what human individuals ascribe to their devices. Increasing valuation by society is not necessarily linked to quantitative growth – this probably means that the price system will indeed have to change from a mark-up procedure corrected by small changes to keep reasonably low inventory stocks with high revenues towards a truly demand-driven device for the determination of social valuation of goods and services.

For some of the most dangerous global developments task forces supported by think tanks with some autonomy in the short-run, but still under scrutinizing public control in the mid-run will be needed. In the longer run they are meant to guide the overall interplay between human production activities and the natural environment – a substitute for the almost religious believe in the welfare enhancing properties of the insatiable chase for profits of capitalists.

Ownership of production units will and should continue to change its form towards more communitarian mechanisms. There always will be hierarchical elements based on authority, but this authority has to be paid voluntarily as a tribute by those working under its guidance. Moreover it should not be accompanied by income inequalities of the orders experienced today. With social valuation it can be expected that in general a span of one to ten for the same time spent will not be exceeded.

Many other elements could be envisaged – and it often can be recognized that current practices already contain features of the future solution in a capitalistically disguised form. In other words, the original tenets of the labour movement of the 19th century will be translated into social forms of the 21st century - public funds will transcend the historically valuable functions of capital.

This paper tried to pave the way to an overarching modelling framework to understand long-run developments of the global political economy. Its fragmentary character is due to the enormous challenge, which such an aspiration involves. The formal framework, the simulation, still is work in process – formalization and working on the sharpening of the vision are interdependent processes⁵. The incorporation of the ascending stream of works of other authors in the area consumes a lot of labour time. Nevertheless even the modest and brief sketch provided in this paper hopefully should inspire researchers to join this quest.

⁵ Due to the large amount of background material - and not divert the reader from the main stream of thought – this first version of the paper does not include referenced work at all. For readers interested in references and further elaborations updated versions will be available on my website: <http://www.econ.tuwien.ac.at/hanappi/>.