European Governance – Do We Need a New Navigation Map?

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Abstract

There are two types of a market economy. In "real capitalism", striving for profits is channeled to entrepreneurial activities. Market and government, competition and cooperation are regarded as complementary. The dominant theory legitimizes an active government and financial market regulation. Stable exchange rates and interest rates below the growth rate limit returns from financial investment/speculation and favor entrepreneurial activities. In "finance capitalism", (neo) liberal theories dominate which call for liberalizing financial markets and for weakening the welfare state. The volatility of exchange rates and commodities prices as well as a positive interest-growth-differential shift activities of the non-financial business towards financial speculation, facilitated by innovations like derivatives. Financial business gradually transforms itself from a sector servicing the real economy to the dominant sector in the overall economy. The long cycle can be explained as sequence of real-capitalistic upward phases and finance-capitalistic downward phases which tilt into a depressive phase after speculative booms lead into financial crises. The paper provides empirical support for this hypothesis by looking at asset price dynamics as well as at the development of government finances and employment under real-capitalistic and finance-capitalistic incentive conditions. It then sketches the performance of the European Social Model and the US model of society under the two different regimes.

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1. Introduction: Some Puzzles and One Hypothesis

Some puzzles serve as points of departure of the paper:

Puzzle 1: Between the late 1950s and mid-1970s the European economy enjoyed full employment even though the labor markets were highly regulated and unemployment benefits were substantial relative to working income (figure 1). Why has unemployment been rising so strongly in spite of the gradual deregulation of labor markets and substantial cuts in unemployment benefits?

Puzzle 2: Between the mid-1950s and the 1970s public debt declined almost continuously in (Western) Europa in spite of building up the welfare state (figure 1). Why has the debt-to-GDP ratio since then risen substantially in spite of increasing consolidation efforts and the related shift from welfare state benefits to individual provisions?

Puzzle 3: Why has the inequality in the distribution of income and wealth become progressively higher in the EU (as almost everywhere in the world) as compared to the 1950s and 1970s? In more general terms, social coherence has been weakening within the single societies and also in the EU as a whole, e.g., GDP per capita is nowadays roughly

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twice as high as it was 40 years ago, yet, the chances for young people to become independent through (non-precarious) jobs and affordable flats are much worse than they were then.

Puzzle 4: Over the 1950s and 1960s, economic growth was much stronger and more stable as compared to the subsequent period (figures 1 and 2). At the same time, however, the dynamics of technological innovations (microelectronics, internet, biotechnology, nanotechnology, etc.) was much more pronounced in the low-growth-period as compared to the "golden age of capitalism".

Puzzle 5: The decline in economic growth since the 1970s was significantly greater in Europe as compared to the US. In addition, average growth rates have been shrinking in Europe from decade to decade (this was not the case for the US where growth picked up in the 1990s). E.g., in the (later) euro area, average rates of GDP growth declined from 5.1% (1960s), to 3.1% (1970s), 2.6% (1980s), 1.9% (1990s) and finally to only 1.1% (2000s).

These observations cast serious doubts on the most fundamental assumptions of neoclassical economic theory which has become the basis of the "navigation map" of economic governance in the EU since the 1980s. This orientation system implies the following:

- The market mechanism provides the best solution of the fundamental economic questions: Which goods and services should be produced, how should they be produced and for whom?
- In particular, the "freest" markets, the financial markets, correctly quantify the fundamental value of the most important assets like stocks, bonds, commodities and foreign exchange (market efficiency hypothesis).
- The government shall abstain from any active policy to reach macroeconomic targets like full employment and stable growth or social targets like a "fair" income distribution or social security (all that can better be attained through the market process or should be disregarded like fostering social coherence).
- The only target of economic policy is providing price stability and sound public finances.
- Long-term economic development is determined by supply-side factors, in particular by the rate of technological progress.

The key hypothesis of this paper is simple. The neoliberal navigation map is wrong as a whole; it has to be dismissed because it cannot be repaired. There are two reasons for this assertion. First, the underlying theory is unable to explain the most characteristic tendencies in post-war economic development (as sketched above). Second, economic policy guided by the neoliberal map together with the manic-depressive fluctuations of financial markets (legitimized by the same map) paved the long way into the current crisis. These conditions have deviated striving for profits from long-term oriented entrepreneurial activities in the real economy to short-term speculation in the financial sphere. This "finance-capitalistic" regime stays in sharp contrast to the "real-capitalistic" regime which had shaped economic development over the first three decades after WWII.

Over the 1950s and 1960s an active policy aiming at full employment, stable economic growth and social coherence (legitimized by Keynesian theory) together with stable exchange rates, commodity prices and interest rates (below the rate of economic growth) channeled striving for profits towards entrepreneurial activities in the real sphere of the economy ("real capitalism" – figures 1 and 2). These framework/incentive conditions facilitated the building-up of the European Social Model, in particular, because full employment could be maintained for almost 20 years.

The "monetarist counterrevolution" of the late 1960s got support from "big business" because permanent full employment had strengthened trade unions as well as the welfare state (too much). The stepwise realization of the monetarist/neoliberal demand for deregulation of financial markets (i.e., for transition to floating exchange rates and to a positive interest-growth-differential) as well as for a restrictive and rules-based fiscal and monetary policy (legitimized by the concepts of a "natural rate of unemployment"/ NAIRU and of rational expectations) changed the "rules of the game" fundamentally.

Under the condition of widely fluctuating exchange rates and commodity prices, and of a high interest-growth-differential, financial and non-financial business shifted activities from the "real economy" to financial investment and short-term speculation ("finance capitalism"). This shift was supported by the tremendous amount of financial innovations (i.e., derivatives of all kinds) which have been realized since the 1980s (figure 5).

Europe was much more affected by this change in the framework/ incentive conditions as compared to the US for two reasons. First, the sustainability of the European Social Model depends much more on a high level of employment as compared to the US model. Second, economic policy in the US emancipated itself from the concept of a rules-based fiscal and monetary policy in the late 1980s and has followed since then a (primitive) Keynesian policy (precisely at that time, the EU took over the concept of a rules-based economic policy).

The paper summarizes the most important steps in the change from "real-capitalistic" to "finance-capitalistic" framework conditions in a stylized manner. It will be shown that the fiscal pact signed by 25 EU leaders on March 2, 2012 marks the (ultimate) attempt to base economic policy on the guidelines derived from monetarist theory:

- Economic policy must be restricted by certain rules whereas markets should enjoy full freedom, in particular financial markets.
- The only legitimate targets of macroeconomic policy are sound public finances and price stability (the genuine interests of finance capital).
- The concept of a natural rate of unemployment (NAIRU) provides the key element in the method of estimating the potential output and, hence, the structural budget deficit.
- The rules of the fiscal pact imply that governments have control over their fiscal stance and that their activities crowd out private business.
- Following the fiscal rules will further weaken the European welfare state as well as the trade unions, the ultimate political objective of monetarism.

The paper sketches at first the different features of "real capitalism" and "finance capitalism". It then shortly summarizes post-war economic history, in particular as

regards the transition from one regime to the other. In addition, I discuss the (in)coherence between the two types of capitalism on the one hand and the European Social Model and the US-model of society on the other hand. This part aims at sketching answers to the question "Where do we stand?".

The following section deals specifically with the EU fiscal pact as the new navigation map for fiscal policy in the EU. I summarize how the pact might impact upon economic performance in Europe. To this end, the results of a simulation exercise with the global model of Oxford Economics are presented.

The depressing results of synchronous austerity policies in the EU at a time when the southern European member states are already in recession become in particularly obvious in the comparison with an alternative strategy: If it were possible to stabilize the level of long-term interest rates at 2% (as in the USA and the UK), a much more favorable trend would result in all euro area countries, but also in the EU as a whole.

The paper will end with sketching guidelines of an expansionary concept of economic governance in the EU which would foster entrepreneurial activities more than "finance alchemy". Such a "New Deal for Europe" would restore the primacy of politics over speculation and should provide the conditions for higher and more stable growth which would in turn mitigate the most oppressing problems like public indebtedness and high unemployment.

As the paper deals with a very wide range of problems following an inductive approach it should not be considered a piece of scientific research but rather a short essay - also in literal sense.

2. Real Capitalism and Finance Capitalism

There exist three types of participation in the production process, labor, real capital and finance capital, and, hence, three types of economic and political interests (table 1). The "purely" economic interests of real and finance capital stay in direct conflict with one another. High profitability of real investments call for low interest rates and exchange rates, and stable financial markets, by contrast, financial investments and speculation profit from exactly the opposite conditions. The conflict of the ("purely") economic interests between real capital and labor can be considered less pronounced than the conflict between real capital and finance capital. E. g., an increase in production costs due to higher wages leads to a much higher increase in final demand and, hence, in receipts of the business sector as compared to an equivalent cost increase caused by higher interest rates.

Even though the interests of real capital and labor are different as regards the distribution of income (for the same reason real capital prefers a minimum level of unemployment), both factors have a common interest in generating a high overall income and, hence, in a strong and stable production growth.

The interests of labor, real and finance capital differ markedly from one another as regards the role of government and the model of society. Whereas labor profits from a comprehensive welfare state, real capital is mainly interested in government activities which foster real production over the long run (e.g., through improving infrastructure and

the education system) and stabilize it over the short run (e. g., through anti cyclical policy measures and a - weak – welfare state). Finance capital is mainly interested in a strong central bank, a restrictive monetary policy and the privatization of social security (table 1).



Figure 1. Long-term Economic Development in Western Europe (¹3-years moving average)

	Labour	Real Capital	Finance Capital
Economic interests	Full employment Real wage increases	High Profitability of real investments: - Low interest rates - Low exchange rates - Stable financial markets	High profitability of financial investments: - High interest rates - High exchange rates - Unstable financial markets
Conflicts of interests	Rising wages 4	>	 Rising interest rates
Potential coalition partners	Real capital	Labor or finance capital	Real capital
Economic interest in state/government	Full employment policy Social security Education Public services	Anticyclical policy Growth policy: Infrastructure Education, etc.	Strong central bank Restrictive monetary policy Privatisation of social security
Political interests	Strong welfare state Strong trade unions	Weak welfare state Weak trade unions	No welfare state No trade unions

Table 1. Labor, Real Capital, Finance Capital

Neoclassical theory cannot consider the conflicts of interest between real capital and finance capital because it assumes that rational speculation in financial markets stabilize exchange rates, stock prices and commodity prices at their fundamental equilibrium according to the goods markets. Even though Keynes often refers to "rentiers", he and his followers do not provide a general framework to analyze the interaction between entrepreneurial interests and (financial) rentier interests. Classical economics does focus on the relationship between rentiers, capitalists and workers, however, the rentiers were participating in the production process through their ownership of land whereas the financial rentiers participates through the ownership of financial assets.

For the same reason one cannot identify "classes" of "real capitalists" and "finance capitalists" in modern society: Non-financial corporations as well as employees own financial assets and have therefore also finance capital interests. It depends on the framework/incentive conditions of the economic system if striving for profit concentrates on investment and innovation (e. g., speculation) in the real sphere or in the financial sphere. In the first case, real capitalism prevails, in the second case finance capitalism (table 2).

Real capitalism consists of many conditions which complement and reinforce each other like a (tacit) coalition between the interests of labor and real capital (against the interests of finance capital). As a consequence, industrial relations are shaped by close cooperation ("Rhine capitalism"). Market and government, competition and cooperation are regarded as complementary; there prevail many – partly conflicting – targets of economic policy, reaching from stable growth to providing social security and a "fair" income distribution.

	Real capitalism	Finance capitalism
Implicit coalition	Labour & real capital	Real capital & finance capital
Business/unions	Corporatism	Conflict
State/market	Complementary	Antagonistic
Targets of economic policy	Many: From full employment, high growth to social security and "fair" distribution	Price stability, "sound" public finances, regulation of policy, de-regulation of markets
"Power center" of economic policy	Government	Central bank
Economic paradigm	Keynesianism	Monetarism/Neoliberalism
Diagnosis/Therapy	Systemic	Symptom-oriented
Financial conditions	Interest rate < growth rate, "calm" stock markets, stable exchange rates and commodities prices	Interest rate > growth rate, boom und bust on stock markets, unstable exchange rates and commodities prices
Striving for profits focuses on	Real economy (Positive-sum game)	Finance economy (Zero-sum game)
Economic model	Social and regulated market economy	"Pure" market economy

Table 2. Real Capitalism and Finance Capitalism

During real-capitalistic periods (as between ~1890 and 1914 and between ~1950 and the mid-1970s or in China since the early 1980s) those economic theories dominate or are at least influential which underline the crisis-prone nature of capitalism (Marxian or Keynesian theories). These theories legitimize a strong government, an active economic policy and market regulations. Stable exchange rates as well as stable and low interest rates limit the returns from financial investment and speculation and focus striving for profits on the real economy (figures 1 and 2). Thus, real capitalism can be conceived as a positive-sum-game.

The theoretical/ideological basis of finance capitalism are (neo)liberal theories which call for liberalizing financial markets, a strong state as regards its core functions (security for citizens and their property) and a weak state as regards welfare, and breaking the monopoly power of unions. These theories legitimate a (tacit) coalition between the interests of real and finance capital against the interests of labor because persistent full employment during a real-capitalistic period shifts power in society from business to trade unions and from conservative to social-democratic parties (as over the 1960s). Therefore entrepreneurs become (again) attracted by the (neo) liberal program. In this sense, the success of real capitalism like full employment and the welfare state lays the ground for its fall.

Under a finance-capitalistic regime, the volatility of exchange rates and commodities prices as well the high level of interest rates has two effects on non-financial business. First, these conditions dampen its activities in the real sphere of the economy since the outcome of these activities becomes more uncertain and more expensive. Second, these conditions make financial speculation and accumulation more attractive. This attraction is further increased by the emergence of financial innovations like derivatives which facilitate speculative transactions. These innovations contribute to a dramatic expansion of financial markets. At the same time, financial business gradually transforms itself from a sector servicing the real economy to the dominant sector in the overall economy.



Figure 2. Dollar Exchange Rates and Global Economic Growth

The weak growth of real investment and, hence, of the overall economy causes unemployment and the public debt to rise which in turn strengthens the game "let your money work". E.g., the shift in provisions for retirement from the welfare state system of "pay-as-you-go" to the (finance-capitalistic) system of individual investment in financial assets lengthen stock market booms. Thus, the discrepancy between the market value of financial assets and their underlying in the real economy widens (the system produces more and more "fictitious capital" as Marx called it). This development leads to "corrections" in the form of financial crises (the crisis of 2008 can be seen as a particularly big correction as it concerned three bull markets at the same time, i.e., stocks, commodities and real estate – in this respect similar to 1929).

Whereas trading in asset markets represents just a zero-sum-game, finance capitalism as a whole becomes a negative-sum-game in its final stage: The destabilization of the most important prices for entrepreneurial activities like exchange rates, stack prices and interest rates together with the effects of financial crises progressively dampen the real economy. The system starts to implode through a series of crises, deepened by austerity policy. In this sense, the accumulation of negative outcomes of finance capitalism lays the ground for its own fall.

As the wide swings of asset prices represent an essential feature of finance capitalism I shall now sketch a hypothesis of the underlying behavior which brings about the sequences of bull and bear markets.

3. Trading Practices and Price Dynamics in Financial Markets

The main observations about price dynamics and transactions volumes in financial markets can be summarized as follows (Schulmeister, 2010a):

• Observation 1: Over the short run, asset prices fluctuate almost always around "underlying" trends. The phenomenon of "trending" repeats itself across different time scales. E.g., there occur trends based on tick or minute data as well as trends based on daily data (figures 2, 3, and 4).

- Observation 2: Technical trading aims at exploiting the trending of asset prices. In the case of moving average models, e.g., a trader would open a long position (buy) when the current price crosses the MA (moving average) line from below and sells when the opposite occurs (figures 3 and 4).
- Observation 3: Technical models are applied to price data of almost any frequency, ranging from daily data to 5-minute or tick data (figures 3 and 4). Due to the increasing use of intraday data, technical trading has become the most important driver of financial transactions. The "fastest" type of algorithm trading is high frequency trading which produces buy and sell signals within milliseconds.
- Observation 4: There operates an interaction between the "trending" of asset prices and the use of technical models in practice. On the one hand, individual traders use different models, trying to exploit asset price runs, on the other hand, the aggregate behavior of all models strengthen and lengthen the price runs (Schulmeister, 2006). Since all types of algorithm trading disregard market fundamentals (they process only information on past prices and trading/order volumes), their use necessarily destabilizes asset prices.
- Observation 5: Very short-term price runs (i.e., monotonic movements) accumulate to long-term trends in the following way. When an optimistic ("bullish") market mood prevails, upward runs last for an extended period of time longer than downward runs, when the market is "bearish", the opposite is the case (figure 3).
- Observation 6: Exchange rates, stock prices or commodity prices fluctuate in a sequence of upward trends ("bull markets") and downward trends ("bear markets"), each lasting several years in most cases. Hence, all important asset prices fluctuate in irregular cycles ("long swings") around their fundamental equilibrium without any tendency to converge towards this level (figure 3).

These observations on asset price dynamics could be explained by the following interaction between the reactions of traders to new information, price movements and trading strategies.

Price runs are usually triggered by news. In order to reduce the complexity of trading decisions under extreme time pressure, traders form only qualitative expectations in reaction to news, i.e., expectations about the direction of the imminent price move (but not to which level and at which speed the price might rise or fall). Subsequent to an initial upward (downward) price movement triggered by news follows a "cascade" of buy (sell) signals stemming from trend-following technical trading systems. At first, the most price-sensitive models based on high frequency data ("fast models") produce signals, at last the slowest models based on hourly or daily data.

Most of the time there prevails an expectational bias in the market, in favor of or against an asset. Such a bias reflects the - optimistic or pessimistic – state of the "market mood" which practitioners call "bullishness" or "bearishness". News in line with the prevailing expectational bias get higher recognition and reaction than news which contradict the "market mood". Hence, traders put more money into an open position and hold it longer if the current run is in line with "bullish" or "bearish" sentiment than in the case of a run against the "market mood".



Dollar exchange rate and oil price dynamics





Daily US dollar/euro exchange rate

Figure 3b. Asset Price Dynamics

This behavior causes price runs in line with the "market mood" to last longer than counter-movements. In such a way, short-term runs accumulate to long-term trends, i.e., "bull markets" and "bear markets". The sequence of these trends then constitutes the pattern in long-term asset price dynamics: Prices develop in irregular cycles around the fundamental equilibrium without converging towards this level.

The most important observations concerning transactions dynamics are as follows:

- Observation 7: The volume of financial transactions in the global economy was 67.4 times higher than nominal world GDP in 2010; in 1990 this ratio amounted to "only" 15.3 (the financial crises caused trading volume to decline for the first time since the 1970s). The overall increase in financial trading is exclusively due to the spectacular boom of the derivatives markets (figure 5).
- Observation 8: Futures and options trading on exchanges have expanded much stronger since 2000 than derivatives transactions in OTC markets. In 2010, the transaction volume of exchange-traded derivatives was 33.3 times higher than world GDP, the respective ratio of OTC transactions was 24.7 (figure 5).
- Observation 9: The value of outstanding OTC contracts was on average roughly 10 times higher than world GDP whereas the value of exchange-traded derivatives was only by a factor of 1.2 higher. The extremely different importance of exchange-traded versus OTC derivatives when based on transactions as compared to outstanding values reflects the essential difference between both types of markets).¹
- Observation 10: Financial market activities are highly concentrated on the most advanced economies. Hence, in Europe the volume of financial transactions is roughly 115 times higher than nominal GDP; in North America it is 90 times higher.



Figure 4. Intraday Asset Price Dynamics

¹ Derivatives traded on exchanges are standardized instruments (futures and options) which are traded at an ever rising speed due to the progress of information technology and the related use of computer-driven trading systems. By contrast, most OTC contracts are tailored to the specific needs of the two parties involved and are therefore mostly held until expiration. This is in particular true for interest rates swaps and forward rates agreements.

These observations suggest that financial markets are characterized by excessive liquidity ("overtrading") and by excessive volatility of prices over the short run as well as over the long run. In other words: Strong and persistent deviations of asset prices from their fundamental equilibrium ("overshooting") are rather the rule than the exception. Trading systems which use only the information contained in past prices exploit the trending of asset prices and reinforce it at the same time. These facts contradict the most fundamental assumptions of equilibrium theory.



Figure 5. Financial Transactions in the World Economy

4. Employment Trends in a Real-Capitalistic and in a Finance-Capitalistic Regime According to the monetarist/neoliberal/neoclassical theory, supply and demand in the labor market determine the level of real wages and employment. When unemployment rises as a consequence of "demand shocks" such as financial crises or oil price shocks, job losses can be compensated only by real wage moderation. Higher wage flexibility is, however, hampered by unemployment benefits, labor protection, minimum wages and the power of unions (characteristic components of the European Social Model).

Actually, the contribution of labor to the production costs is a function of real wages relative to labor productivity. In Europe labor productivity grew even faster than wages (and much faster than in the US) since the late 1970s, exactly during that period when unemployment was rising (the wage share in national income declined noticeably – figure 1).

In addition, if the "rigidity" of European labor markets (stemming from job protection and minimum wages in particular) were truly important this would have to show up in a less efficient allocation of labor and thus weaker growth of productivity as in the US.

The neoliberal explanation of labor demand rests on the (neoclassical) production function where capital input and labor input can be substituted for each other as a function of relative factor prices. However, an analysis of the observed realizations in the K-L-Y-space in the USA, Germany and Japan (overall economy and 12 subsectors) between 1960 and 1995 reveals the following stylized facts:

- Capital intensity (the capital-labor-ratio) grows year after year, i.e., monotonically; the shift to ever more capital-intensive technologies appears to be irreversible because it is driven by technical progress.
- The capital-labor-ratio is unrelated to shifts in the factor price ratio (figure 6).
- Labor productivity grows in tandem with capital intensity: The higher and better the capital equipment of a worker becomes, the higher gets his productivity.

A linear-limitational production function with an irreversibly rising slope of the production rays fits these observations better than the neoclassical production function:

- In the short term, the factor input ratio is fixed; if the output is to be increased, labor and capital inputs need to be raised proportionally, and therefore, short term demand for labor will be mostly influenced by expectations concerning demand in the goods markets.
- In the long-term, capital intensity increases as a function of technical progress rather than of factor prices: more capital per labor is associated with a different quality of capital, meaning that labor productivity rises with capital intensity.

An increase in output can be realized by either of two ways (or a mixture of both):

- Movement along a ray with constant capital-labor ratios: capital intensity and labor productivity remain constant; the additional output is achieved by a greater input of capital and labor of the same quality.
- Movement to a steeper production ray: the additional output is achieved by the increase as well as the improvement of capital equipment per labor and by the related learning process on the part of workers, capital intensity and labor productivity will both increase.



Figure 6. Input, Output and Relative Factor Prices in the Overall Economy: Germany

Under these conditions the dynamics of job creation depends on the dynamics of real capital accumulation and of technical progress. The latter is to a large extent the result of (basic) innovations stemming from the "world of engineers" (interacting with the

economic system). The dynamics of real capital accumulation depends primarily on the (expected) profitability of activities in the goods markets as compared to those in the financial markets.

These observations and considerations suggest that the essence of persistent unemployment is sketched by analogy to the musical chair game: There are 100 chairs, 110 people want to get one, and those persons who do not get a chair are the least qualified. If they are (re)qualified they might get a chair in the next rounds, yet, at the expense of others.

From this perspective, high unemployment and persistent unemployment is due to a shortage of jobs. To overcome the problem, job creation must become less risky and more profitable for entrepreneurs. This calls for real-capitalistic framework conditions. Lower wages cannot do the job.

5. Public Finances in a Real-Capitalistic and in a Finance-Capitalistic Regime

The ratio of public debt to GDP was declining in (Western) Europa for 20 years from 70% to 40% when the welfare state was strongly built up, and it has been rising to almost 90% since the late 1970s in spite of consolidation efforts (figure 1). These developments cast doubt on the mainstream explanation that the government has control over its fiscal stance and must therefore be blamed for its rising indebtedness.

From a systemic perspective one has to analyze the interaction between the financial balances of all sectors of an economy. If, e.g., the business sector reduces its deficit in a recession then the government suffers from a rising deficit due to the operation of the automatic stabilizers (and eventually also due to discretionary measures). If the business sector increases its deficit again for financing real investments, then the government can easily improve on its balance during the recovery. The recession in Germany in 1967 and the subsequent years are a good example for the interaction of the financial balances under real-capitalistic conditions (figure 7).

Over the medium and long run these conditions ensure that the business sector takes over household saving in the form of investment credits and transforms it into real capital and jobs (figure 8). As a consequence, the government's budget remains in balance and the debt-to-GDP ratio declines since the rate of interest lies below the rate of economic growth (figure 1). Under these conditions the (planned) surpluses and financial assets of private households (roughly) equal to the (planned) deficits and financial liabilities of the business sector.

Finance-capitalistic conditions change the interaction of financial balances and the dynamics of debts/assets in particular in three respects. First, recessions occur more frequently than in a real-capitalistic regime due to financial turbulences like oil price shocks, interest rate shocks or wealth devaluations caused by (the coincidence of several) bear markets. Second, recoveries become progressively weaker as financial instability and the related profit opportunities from speculation dampen real investments. Third, the rate of interest is higher than the rate of growth.

These three differences in economic development between a finance-capitalistic and a real-capitalistic regime can explain the different post-war trends in public indebtedness.

This is so because the dynamics of debts is driven by two factors, the accumulation of (primary) deficits and the interest-growth differential. The latter does not only directly impact upon of the development of the public debt but also indirectly through the adjustment of the business sector to a positive or negative interest-growth-differential.

The reason for that is simple (taking the development in the euro area as example): If the rate of interest exceeds the rate of growth (in nominal terms), any debtor (sector) has to run a primary surplus in order to stabilize the debt-GDP-ratio ("dynamic budget constraint"). To achieve such a surplus, the non-financial business sector reduces real investment in favor of financial accumulation (figures 7 and 8). At the same time, also financial businesses and households run primary surpluses (e. g., private households – a creditor sector - save usually more than their net interest income).



Figure 7. Financial Balances in Germany (Source: Deutsche Bundesbank (corrected for unwinding the "Treuhandanstalt" in 1995 and for proceeds of the UMTS license auction in 2000).)

Under this condition, the government can achieve a primary surplus only if the rest of the world runs/accepts a current account deficit (the primary balances of all sectors of any country sum up to zero). Since the current account (minus net interest payments) of the euro area as a whole is roughly in balance, only governments of countries with (large) current account surpluses (like Germany) have a chance to achieve primary surpluses. The other euro countries do have such a possibility only under very restrictive conditions (e.g., if households save less than their interest income).

However, if the rate of interest exceeds the rate of growth to such an extent as nowadays in countries like Spain and Italy (figure 10), it is practically not possible to cause the business sector and/or household sector to run a primary deficit large enough to compensate for the primary surplus of the rest of the world and at the same time to enable of the government to also run a primary surplus (which has to be the larger the greater is the interest-growth-differential).

Conclusion: Finance-capitalistic conditions in general and a positive interest-growthdifferential in particular lead inevitably to a fundamental inconsistency between the (planned) financial balances and creditor/debtor positions of the different sectors. If the rate of interest significantly exceeds the rate of growth, more government saving will rather reduce economic activity than the public debt-to-GDP ratio.

This conclusion is in line with the empirical evidence. Under the incentive conditions of the 1950s and 1970s the surpluses (savings) of households were taken over by the business sector in the form of deficits (figure7) in order to finance the accumulation of real capital and, hence, the creation of jobs (figure 8). Stable economic growth at full employment enabled governments to build up the welfare state and keep the budget in balance at the same time. At a negative interest-growth-differential public debt declined relative to GDP (figures 1 and 7).

Since the 1970s, the finance-capitalistic framework conditions induced non-financial business to reduce its deficit und to become a surplus sector in the 2000s in most of the big industrial countries like Germany (figure 7). In other words: Real investments were reduced in favor of financial investments, the stock of real assets has been declining relative to value added whereas the accumulation of financial assets has risen dramatically (figure 8). As a consequence, job creation and economic growth has slowed down, unemployment rose so that even stability-oriented countries like Germany have been running persistent budget deficits (figure 7). Given the positive interest-growth-differential, the public debt-to-GDP ratio has risen steadily (figure 1).

6. The Long-cycle as a Sequence of Real-Capitalistic and Finance-Capitalistic Regimes

In contrast to the supply-side oriented theories of the long cycle as pioneered by Kondratieff, the present paper hypothesizes that this phenomenon might better be understood as a sequence of real-capitalistic and finance-capitalistic regimes.

The upward phase of the long cycle is brought about through framework conditions which focus profit-seeking to the real economy. Real accumulation is booming, finance capital grows in tandem with real capital or somewhat slower due to the undervaluation of financial assets, in particular of stocks (in principle, finance capital is just the "flip (balance sheet) side", however, "bulls" and "bears" in asset markets cause periods of rising overvaluation and undervaluation of finance capital – figure 9 shows that these valuation effects also concern real estate).

The longer the boom lasts, the more important becomes the banking system and the stock exchange. (Former) Entrepreneurs try to top their rates of return on real capital through financial investments and speculation, the period of "high finance" sets in. The more people try to "let their money work" in a self-referential way the more stock prices boom, becoming increasingly overvalued. This process leads sooner or later to a "correction", mostly in the form of a stock market crash causing a general financial crisis.

During the subsequent phase of an economic depression, economist and politicians learn the/some lessons from the crisis, the framework conditions are changed in favor of

entrepreneurial activities, in particular through financial regulations and an economically more active government).²

Stylizing some facts of economic development over the last 150 years might illustrate the dynamics of the long wave as a sequence of real-capitalistic and finance-capitalistic regimes.

Financial speculation leads to the great stock market crash of 1873, followed by a crisis of the financial system and a depression of the real economy. The tensions in society become more pronounced as does the organizational and political power of the workers' movement. As a reaction, the basic components of the welfare state are introduced in the 1880s, first in Germany and then in most other European countries. The related stabilization of purchasing power and, hence, of final demand, but also stable exchange rates, low interest rates and the first wave of globalization contribute to the real-capitalistic expansion of the "belle époque" (~1980 to 1914).

Over the "roaring 1920s" the mood of "let your money work" broadens, in particular in the US and leads to a spectacular stock-market boom which crashes in October 1929. The economy slides into a recession, the budget deficits widen, economic policy follows the advice of economists not to fight the crisis but to adopt a savings policy (in finance-capitalist phases, the "laissez-faire" theories prevail in economics). This policy paves the way into the Great Depression, together with the collapse of the gold standard, competitive devaluations and other forms of protectionism.

The consequences of the depression are so catastrophic that also the learning process enforced by this crisis evolves in an in-depth manner. It results in a new macro-economic theory (Keynesianism), an active economic policy focusing on stable growth and full employment, stable exchange rates ("Bretton Woods"), de-regulation of goods markets (e. g. though the GATT rounds), but strict regulation of financial markets.

In addition to establishing real-capitalistic framework conditions, two other developments foster the "economic miracle" of the 1950s and 1960s, in particular in Europe. First, the social coherence is systematically strengthened though building up the welfare state. Second, there prevails a tight coherence between the technological paradigm (Fordism) and the economic and social paradigm (Keynesian welfare state model).

 $^{^2}$ In a profound and original study in economic history, Arrighi (2010) combines a similar model of long waves with Fernand Braudel's concept of center and periphery and the related role of the hegemon in the global economy. In Arrighi's interpretation, an economic and political system becomes the hegemon during a real-capitalistic upward phase, then moves to "high finance" and by doing so finances the upward phase of its successor. In this way, the Republic of Genoa financed the expansion of the Dutch Republics during the 16th century which then financed the industrialization of Great Britain. When London moved to "high finance" in the 2nd half of the 19th century it financed the US expansion. When the Wall Street became dominant in the late 1970s, the US started to finance the expansion of the Chinese economy through joint ventures which also provide a continuous technology transfer (it goes without saying that this note is only an extremely simplified sketch of Arrighi's concept of "systemic cycles of accumulation").



Figure 8. Real and Financial Accumulation of Non-financial Business

The main components of the welfare state model are the systems of social security and the education system. The first aimed at reducing individual risks of becoming unemployed, getting ill or disabled or of suffering from poorness in retirement. The second component, the education system, aimed at reducing the inequality in the "start conditions" of young people but also at improving the growth potential of the overall economy.

Providing stable framework conditions for the expansion of individual entrepreneurship in the real economy and strengthening the coherence in the society as a whole become the two pillars of the "European Social Model" (ESM). Its development is not only due to learning the lessons of the Great Depression but is also due to reacting the challenge of the socialist model in Eastern Europe, i.e., to the "cold war".

This paper shall investigate an alternative hypothesis, namely, that economic performance is to a large degree shaped by the (in) coherence between the technological paradigm and the economic and social paradigm.

The "Fordistic" type of (mass) production fits well to the Keynesian paradigm of the 1950s and 1960s which legitimates the strengthening and stabilizing mass consumption. In more general terms one can argue that by the (in)coherence between the technological paradigm and the economic and social paradigm is a key factor in the dynamics of the long cycle. When technological innovations take place they usually cannot be utilized fully because there is a lack of accommodating social innovations. E.g., Fordistic mass production is already invented in the 1920s but could not be fully used in the 1950s and 1970s due to the social innovation of Keynesian theory and politics.

In an analogous way one can argue that nowadays those social innovations are (still) missing which would accommodate the technological innovations of the last decades in such a way that the society as a whole can profit from progress in technology as well as in the socio-economic relations. The contradiction between the progression in technology

and regression in economics (i.e., the return to an old paradigm - a process unconceivable in natural sciences) is one important feature of the current crisis.

The battle against the Keynesian paradigm in favor of the (neo)liberal paradigm in the form of monetarism takes off in the late 1960s. The political intentions are directed against the welfare state and the power of unions. The reason is easy to understand. Full employment and the strengthening of the welfare state shifts economic and political power from business and conservative parties to unions and social-democratic parties, the Zeitgeist moves to the left, unions enforce a substantial redistribution in favor of wages (figure 1) through an increasing number of strikes, in particular in Italy, France and the UK.

These developments cause "big (non-financial) business" to support the "monetarist counterrevolution". The stepwise realization of the monetarists' demand for de-regulation of financial markets - their second most important target besides weakening unions and the welfare state – change transform the system from a real-capitalistic to a finance-capitalistic regime, accompanied by a change in the "partnership" of real capital from labor to finance capital.

The collapse of the Bretton Woods system and the following dollar depreciation induce the first oil price shock and trigger indirectly the first global recession since the 1930s (figure 3a). The coincidence of rising unemployment and rising inflation is taken as disprove of the Keynesian theory (by the same economists who had indirectly contributed to this constellation through their fight against a system of stable exchange rates).

The sequence of a dollar depreciation and an oil price shock is repeated between 1977 and 1980 (figure 3a), leading to a second recession which lasts almost 3 years because central banks now fight inflation through an high interest rate policy. Since then the rate of interest lies almost permanently above the rate of growth (figure 1).

This change in the financing conditions together with the facilitation of speculation through the creation of financial derivatives of all kinds dampens real investment and economic growth, unemployment and public debt continue to rise (figure 1).

By the late 1980s, the US dismisses the concept of a rules-based policy, at a time when the EU takes over this concept in preparation for the monetary union (Treaty of Maastricht 1992). Over the 1990s, economic growth in the EU declines further, at the same time stock markets boom like never before in post-war history.

After the crash 2000/2003, the coincidence of three "bull markets", marks the final ("euphoric") phase of finance capitalism (of the current cycle): Stock prices, house prices and commodity prices boom at the same time, building up the potential for the simultaneous collapse in 2007/2008.



Figure 9. Wealth of Private Households in the US (Source: Federal Reserve Board; (1) Stocks, Investment funds, pension funds.)

The systemic causes of the subsequent crisis - the coincidence of three "bear markets" following three "bull markets" - are not recognized due to the predominance of the "free-market-paradigm". However, shocked by the events in fall 2008, the elites remember the 1930s and fight the crisis through saving the banks and stimulus packages, yet, the rules of the game remain the same. Once stock prices start to boom again, the process of denial and repression sets in. One returns to the finance-capitalistic business as usual.

As a consequence, a large part of the funds for saving the banking sector and stimulating the economy are again invested in "finance alchemy" activities. Stock prices as well as commodities prices boom again.

The crisis has caused the public debt to increase strongly. This is now taken as opportunity to re-interpret the crisis in the context of the neoliberal paradigm as a genuine "public-debt-crisis". The unsustainably high debt levels in some countries like Greece or Portugal seem to confirm this perception.

The different extent of the indebtedness of euro states induces financial investors to speculate on the default of sovereign states. Understandably, Greece became the first target. Between October 2009 and May 2010, CDS premia and interest rates on Greek bonds soar forcing the EU to set up the rescue fund EFSF. However, this measure could not prevent the interest epidemic to spill over to Ireland, Portugal, Spain and Italy (figure 3).

In the hope for pleasing "the markets", austerity measures are strengthened in all these countries, economic growth continues to decline, and interest rates increase even more. Parallel to these developments, the EU austerity rules are tightened in several steps (Euro-Plus-Pact, Sixpack, and Fiscal Compact). When these rules are put in practice they will lead the European economy into a downward spiral.

To conclude: The current crisis which has been deepening since 2007 marks the first phase in the transformation process from finance-capitalistic to real-capitalistic framework conditions, in other words, the beginning of the trough phase in the long cycle.



Figure 10. Interest Rates on 10-year Government Bonds

7. The European Model and the US Model under Real-Capitalistic and Finance-Capitalistic Conditions

Table 3 summarizes the main differences between the European Social Model and the US model of society in a (very) stylized manner. The roots of the European Social Model lie in the traditionally great importance of citizens being embedded in social contexts. The respective organizations range from the feudal system or the guilds of craftsmen in medieval times to interest groups like trade unions and up to the modern welfare state. In the US, by contrast, competition as individuals is the most important form of social interaction. This is related to the fact that the US has evolved from a society of immigrants in which the individual fight for survival and expansion is of central importance.

As a consequence, organizations like trade unions or political parties as a means of pursuit of interests play a comparatively greater role in Europe. Individual freedom, social justice and solidarity together can be considered the key values of European society ("Liberte, egalite, fraternite"). In the US, by contrast, (just) individual freedom ranges by far highest ("pursuit of happiness").

•	Europe	USA
Long-term development path	Citizens embedded in social contexts (feudal system, communities, interest groups, welfare state)	Citizens as (former) immigrants: Mentality of adventurers, Competition as dominant form of social interaction
Pursuit of interests	Mainly through organisations (unions, etc.)	Predominantly as individuals in markets
Fundamental values	I ndividual freedom <u>and</u> social justice ("Liberte, egalite, fraternite")	Individual freedom, ("pursuit of happiness")
Importance of trade unions and organisations of entrepreneurs	Great	Little
Labour relations	Corporatism	No institutionalized cooperation
Labour markets	Regulated	"Hire and fire"
Insurance against illness, old-age Poverty, unemployment	Provided by welfare state	Mainly private (or no) insurance, unemployment benefits modest
Education system	Primarily run by welfare state	Mainly private
Relationship market/state	Complementary	Antagonistic
Importance of the welfare state	Great	Little
Importance of the financial sector	(Traditionally) Little	Great
Role of (stock) exchanges	(Traditionally) Less important	Very important
Focus of making profits	(Traditionally) Real economy	Real and Financial Economy
"Economic culture"	"Real capitalism" combined with welfare state	"Real and financial capitalism" ("Silicon Valley culture" combined with "Wall Street culture")

Table 3. European Model versus US Model

These differences are also reflected by the way how insurance against basic risks of life is provided and how the education system is organized. In both respects the welfare state plays a much more important role in Europe as compared to the US. As a consequence, the relationship between market and state is (traditionally) considered complementary in Europa but rather antagonistic in the US.

Significant differences have also been prevailing as regards the relationship between the real and the financial sphere of the economy and the related "economic culture". The economies in (continental) Europe have been primarily focused on the real economy. In the US (and also in the UK), the "Wall Street" (and the "City") play a key role in the economic system.

Since the early 1990s, the practice of economic policy in the EU has been staying in an increasing contradiction to the principles of the European Social model. This policy was shaped by the following general guidelines:

- Restrictive regulation of fiscal and monetary policy
- Deregulation of financial, goods and labor markets

These neoliberal guidelines have progressively weakened the European welfare state. At the same time US economic policy has been following a "bastard-Keynesian" course.

The fiscal rules were established in 1992 in the Treaty of Maastricht and have then been tightened through the treaty of Amsterdam (1997) and recently through the Sixpack and the Fiscal Compact. For the reasons already discussed the adoption of a savings policy could not succeed in reducing public indebtedness but has instead weakened economic growth and the welfare state.

Fiscal policy adopted by the US government has differed remarkably from the European approach over the past 20 years. Over the short run the US has been following a pronounced countercyclical course. E.g., in and after recessions the government increased the budget deficit deliberately and strongly. Afterwards it did not adopt a savings policy but let the automatic stabilizers care for a continuous improvement of the fiscal stance (however, this approach worked well only during the Clinton presidency, afterwards huge tax reductions and the costs of the financial crisis caused the fiscal stance to strongly deteriorate).

Monetary policy in the euro area is regulated through the statute of ECB which gives price stability the highest priority and leaves almost no room for other economic targets. By contrast, the US central bank considers growth of production and employment as important as price stability.

US authorities try to support the own economy not only by means of an active fiscal and monetary policy but also by stimulating exports through an undervalued dollar exchange rate. E.g., during and after the recessions 1991 and 2001, the "talking the dollar down" on behalf of US politicians contributed to strong depreciations of the US currency. After the great recession of 2009 this strategy failed due to the deepening of the euro crisis which caused the euro exchange rate to decline.

The neoliberal practice of EU policy and the "bastard-Keynesian" practice of the US are reflected by the different development of public demand in the US and in Germany since 1991 (admittedly, Germany is that EU country which has followed the most pronounced neoliberal course). In the US, the government has increased investment and employment between 1991 and 2011 by 38.4% and by 21.6%, respectively. In Germany, by contrast, public investment and employment were reduced by 11.8% and by 32.3%, respectively. In 1991, the share of public employees in overall (dependent) employment was higher in Germany than in the US (19.3% and 16.8%, respectively), 20 years later the opposite was the case (Germany: 12.7%, US: 17.1%).

To summarize: A comparison of the fiscal and monetary policy adopted by the EU on the one hand and by the US on the other suggests that an exchange of concepts took tacitly place around 1990. The EU took over the monetarist approach of regulating fiscal and monetary policy in a restrictive manner whereas the US adopted a "bastard-Keynesian" approach. This "de-facto-export" of monetarism from the US to the EU was related to two developments. First, policy in the US learned from the experience with monetarist policy over the 1980s: High interest rates and an overvalued US dollar had dampened economic growth, in particular in manufacturing. Second, the EU was preparing a monetary union and looked for criteria of entry into the "club".

Macro- economic framework conditions Institutional frame conditions	Real capitalism	Finance capitalism	Mixed (Bastard-Keynesian monetary and fiscal policy speculation focused on stock market)
European Social Model	Europe until ~ 1973/80	Europe since ~ 1973/80	
US-Model	US until ~ 1973/80	US since ~ 1973/80	US since ~ 1990

 Table 4. Europe and US under Real and Finance Capitalism

An evaluation of the realization of the 4 combinations of real/finance capitalism on the one hand and the European/US model on the other hand in post-war history (plus the special case of the US-strategy since the early 1990s) suggests that the best performance was realized in Europe over the 1950s and 1960s due to the coherence between the principles of the European Social Model and an real-capitalistic incentive structure. The worst performance can be attributed to the (inconsistent) combination of finance-capitalistic conditions and the European model, i.e. the development in the EU over the last 20 years and the years to come.

8. The Fiscal Pact—the EU Governance Concept based on the Neoliberal Navigation Map

The fiscal pact represents a further step in a series of attempts on behalf of EU politicians to attain fiscal consolidation through certain rules, beginning with the 3%-deficit rule and the 60%-debt rule of the Treaty of Maastricht (1992) for entering the monetary union. The Treaty of Amsterdam (1997) transformed these rules into permanent obligations (Stability and Growth Pact – SGP). In 2011, the Euro-Plus-Pact and the Sixpack strengthened the fiscal rules further, in particular through the introduction of the 1/20-debt-rule and the rule that any country has to restrict the growth of public expenditure as long as it has not reached its medium-term budget objective.

The fiscal pact builds on these rules and completes them with a debt-brake rule according to the German model: The structural deficit of any country must not exceed 0.5% of GDP. This rule will fundamentally change the conduct of fiscal policy in the EU for several reasons. First, the structural deficit is a theoretical construction which cannot be directly calculated. Hence, the concrete room for manoeuvre of fiscal policy will to a large extent be determined by the estimation method of structural deficits. Second, the method used by the European Commission is biased against conducting an active (counter-cyclical) economic policy and against preserving the welfare state. Third, discretionary measures to fight a deepening crisis (as in fall 2008) will be delayed due to the uncertainty whether or not these measures will "endanger fiscal sustainability in the medium-term". Fourth, the interlinkage between the structural-deficit-rule and the 1/20-debt-rule can easily lead into downward spirals. Austerity measures reduce the deficit but

also GDP so that the debt-to-GDP ratio rises which in turn enforces additional austerity measures.

The concept of a structural deficit and the method of its estimation are derived from general equilibrium economics. It is assumed that all markets clear, and that the system converges towards full employment after a shock. Any persistence of unemployment after a shock is due to labor market rigidities, in particular real wage rigidity. This part of the labor force is by assumption no longer available ("natural unemployment", estimated as NAIRU or NAWRU) so that potential output growth declines if unemployment persists after a shock. As a consequence, the output gap narrows and the greatest part of the headline fiscal deficit becomes a structural deficit (the cyclical component declines with the output gap).

The underlying logic is the same as with structural unemployment: If the deficit is not reduced by the government it becomes structural because the government could have adopted consolidation measures. Such measures would not dampen overall production as the economy tends to return to full capacity utilization if not hampered by regulations or by government activities which "crowd out" private activities.

The fiscal pact allows temporary deviations from the structural deficit rule only "in exceptional circumstances (...) provided that the temporary deviation of the Contracting Party concerned does not endanger fiscal sustainability in the medium-term".

As regards the consequences of unjustified deviations, article 3 states: "In the event of significant observed deviations from the medium-term objective or the adjustment path towards it, a correction mechanism shall be triggered automatically".

If there exist in reality a negative feed-back from fiscal policy to overall economic performance then any strong demand shock would lead into a phase of stagnation or even depression. At first, fiscal policy is allowed to fight the crisis though discretionary measures. This causes the fiscal stance to deteriorate, the fiscal pact calls for austerity measures which in turn causes the economy to shrink again. In addition, the debt-to-GDP ratio will have risen markedly due to the original crisis and the subsequent stagnation (or even depression). Therefore (also) the 1/20-debt rule calls for more austerity measures.



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Figure 11. Output, Unemployment and the Fiscal Stance of Spain

The automatic vicious circle institutionalized by the deficit and debt rule of the pact as well as by the method of estimating structural deficits used by the European Commission (EC) can be demonstrated, taking the recent development in Spain as example (figure 12 – all data stem are from EC data bases, spring 2012).

The financial crisis and the collapse of the housing bubble causes a deep recession in 2009, unemployment and the budget deficit increase sharply. As unemployment does not decline afterwards, it gets "natural" – by theoretical and methodological construction the NAWRU follows the actual unemployment rate (figure 11). Since less employable people are fed into a Cobb-Douglas-function, potential output starts to decline. As a consequence, the output gap does not rise in spite of the deepening of the crisis but stays at roughly 4%. Therefore, most of the actual deficit becomes "structural" (the EC estimates the cyclical component in general as roughly 50% of the output gap, in the case of Spain somewhat less, Larch and Turrini, 2009).

The excessive structural deficit forces the government to more austerity measures. In 2011, transfers stagnate (in spite of unemployment rising above 20%) and government consumption shrinks. These measures induce a further decline of GDP in 2012 (together with tax increases which however do not result in higher receipts due to the new recession). As a consequence, the fiscal stance will improve much less than expected, calling for further austerity.

In the meantime, the debt-to-GDP ratio has risen from 40% to more than 80%. It will be far above 100% if Spain will ever attain a structural deficit of less than 0.5%. Then austerity policy has to continue according to the debt rule.

In addition to introducing the 1/20-debt rule as part of reforming the corrective arm of the SGP, the Sixpack also contained measures to strengthen the preventive arm of the SGP. "The preventive arm of the SGP requires that Member States aim for, achieve and maintain medium term budgetary objectives (MTOs) which are determined according to the specifics of each country's economic and budgetary circumstances (...). The MTOs

currently range from a deficit of 1.5% of GDP to a surplus of 1% of GDP, with most countries having the MTO of balance". (EC, 2011:69)

In the reformed SGP, "the progress towards it (the MTO) and compliance with the provisions of the preventive arm is assessed based on a 'two-pillar approach': The first pillar remains the change in the structural balance, with reference to a 0.5 of a percent of GDP improvement as a benchmark. The second pillar introduces an expenditure benchmark, which countries must meet when adjusting towards the MTO". (EC, 2011:71)

"Specifically, to be consistent with the MTO or the adjustment towards it, expenditure growth needs not to exceed – and if the MTO has not been achieved, remain clearly below – a reference medium-term rate of potential growth unless (i) the excess of expenditure growth over the rate is matched by discretionary expenditure measures; (ii) the MTO has been more than attained". (EC, 2011:71)

These formulations clearly demonstrate that the preferred way of fiscal consolidation according to the revised SGP is a smaller share of the public sector in the overall economy. The European Commission concretizes this approach by suggesting an expenditure growth 1 percentage point lower than GDP growth.



Figure 12. Interest Rate, Growth Rate, and Unemployment and Government Debt in Western Europe

This approach implies that the automatic stabilizers cannot fully operate as long as the MTO is not achieved (as is currently the case in almost all EU member states): "The expenditure threshold approach allows the free operation of the automatic stabilizers, as long as expenditure is on a sustainable path over the cycle". (EC, 2011:73) As a consequence, the (potential/probable) feed-back from consolidation measures to shrinking demand will be the more strengthened the deeper a country is in economic troubles (and the more it misses its MTO). Because then it must not even let the automatic stabilizers operate fully.

9. The European Monetary Fund

If economic policy in the EU does not succeed in stabilizing the rate of interest below the rate of growth (figure 12) and in eliminating the tremendous differences in interest rates on government debt between euro countries (figure 10) the European Monetary Union

will collapse, and this will lead most probably into a depression causing the economic and political tensions to rise dramatically within the EU.

As yet, all attempts to overcome the euro crisis like strengthening austerity policy, establishing and enlarging rescue funds, injecting liquidity into the banking system have failed. In order to find a systemic solution to a systemic problem one need to reconsider some basics.

In principle, corporations as well as the state can be financed either through bank credits or through bonds sold in the capital market. In addition, the agency for managing government finance can offer accounts to deposit money at fixed rates over a certain period (these assets/time deposits/savings accounts are not tradable – in Germany they are called "Schatzbriefe", in Austria "Bundesschätze").

Almost all government finance relies on bonds at fixed rates (eventually indexed to CPI) which are traded in the secondary markets. At the same time, government bonds have become the most important underlying in derivatives markets (including – since fall 2009 – CDS related to government bonds). Speculation and hedging activities have almost exploded in these markets (not least because government bonds are the most important assets for institutional investors). As a consequence, refinancing costs of governments have been destabilized, over time as well as across countries.

This development makes it progressively more difficult or even impossible for governments to play their role as stabilizer of the economic system, a role which is particularly important in a finance-capitalistic regime and even more so in a monetary union under those framework conditions.

Two examples might illustrate this contradiction. First, banks of euro countries can rely on the ECB as lender of last resort; euro governments have to burden the costs of bailing out "their" banks but cannot rely on a lender of last resort.

Second, banks can borrow funds from the ECB and use them for speculating against EMU member states whereas these states do not get financial support against the speculators from the central bank (only sometimes indirectly through bond purchases). In exchange for support from the EFSF (future ESM) governments have to implement more austerity measures which dampen the economy and cause interest to rise further.

In addition, the limitation of the "fire power" of the EFSF/ESM operates like an invitation to speculators not to give up.

In order to stabilize the financing costs for governments in the EMU one needs an institution – the European Monetary Fund - which has unlimited intervention capacity and which manages public finances of euro member countries. The EMF raises funds in two different ways, first, by offering investors to deposit funds at a Euro-Account at the EMF as a bank (equipped with a bank license) and, second, by selling Eurobonds in the capital market as a special fund like the IMF. In addition, the EMF intervenes in the secondary market of national government bond.

All these activities aim at stabilizing interest rates on government debt at a uniform level below the (expected) rate of medium-term growth (at the moment at roughly 2% as in the US and the UK). As reaching this target is indispensable for changing the course of economic development, the EMF can be considered one core component of a "New Deal for Europe".

A systemic problem needs a systemic solution which restores the primacy of politics over speculation. It is proposed to transform the European Financial Stability Facility (EFSF) into the European Monetary Fund (EMF). The scope of the EMF is fourfold:

- The EMF provides euro governments with financial means by selling Eurobonds in the capital markets and by offering to deposit money at a Euro-Account at the EMF. Both types of liabilities of the EMF are guaranteed by all euro countries to an unlimited extent. In addition, the EMF has full backing by the ECB (if necessary, the ECB refinances the EMF which is equipped with a bank license).
- The EMF stabilizes Eurobond interest rates at a level below the level of mediumterm economic growth (in nominal terms). The interest rate on Euro-Account is fixed over a certain period; the interest on Eurobonds is stabilized through EMF intervention in the secondary market. Euro-Accounts can be liquidated at any time; Eurobonds are – of course – also fully liquid.
- The EMF helps to restore sound public finances in euro countries according to a systemic approach and, hence, in close cooperation with the ECB, the European Commission and national governments. To this end, the EMF provides funds for the euro states according to clear criteria ("conditionality") which are not exclusively restrictive.
- The EMF overcomes the split between euro countries caused by widening interest rate differentials and strengthens thereby the cohesion and credibility of the EMU and of the EU as a whole.

The fundament for achieving these goals has already been built by European leaders: The European Financial Stability Facility (EFSF) and its successor, the European Stability Mechanism (ESM) could be transformed into the European Monetary Fund.

This paper argues that the fundamental contradiction does not prevail between the stability of a monetary union and the lack of a fiscal union (with an EU finance minister or even a complete EU government) but between the former and finance-capitalistic framework conditions where speculative activities drive interest rates up to unsustainable levels in some countries and to extremely low levels in others, thereby strengthening the economic divergence in the union as a whole.

This becomes clear if one assumes that policy succeeds in stabilizing interest rates on government bonds at a level below the rate of economic growth. In this case, one does not need a "big jump" to an EU government but could gradually (and only slowly) overcome the problems related to the dynamics of public debt, the preservation of the European Social Model and the return to economic convergence within the EU.

10. The European Economy under the Governance of the Fiscal Pact or of Interest Rate Stabilization—Two Model Simulations

This section summarizes the results of an econometric simulation of two scenarios using the global model of Oxford Economics (OEF model, version of February 2012). In the first case it is assumed that the rules of the fiscal pact are implemented, beginning in mid-2012. In the second case it is assumed that the interest rate on euro government bonds is stabilized at 2%.

The fiscal pact scenario is simulated as follows:

- The annual consolidation requirements of the individual EU countries are identified on the basis of data for 2011 (including the EC estimates of structural deficits).
- It is assumed that the target of a maximum structural deficit of 0.5 % of GDP is to be reached by 2016 (in analogy with the German "debt brake").
- 70 % of the consolidation measures consist of spending cuts in government consumption, public investment and government transfers and 30 % consist of increases in direct and indirect taxes as well as employees' social security contributions.
- The consolidation policies are adjusted on the basis of the simulation results for 2013. If, for instance, the deficit criterion no longer indicates any consolidation requirement, but the debt criterion does, the austerity policy is continued.

The simultaneous austerity policies in almost all EU countries would have a strong negative effect on economic growth in the euro area GDP would shrink for two years (gross capital formation would be most affected), unemployment would rise to more than 12% in 2014 and from 2015 consumer prices would start to decline (figure 13). Southern euro area countries would be hit most by the implementation of the fiscal pact as they are already in a recession.

The disastrous effects of a synchronous austerity policy in the EU become obvious in the comparison with an alternative strategy: If it were possible to stabilize the level of long-term interest rates at 2% (as in the USA and the UK), a much more favorable trend would result. The economy in the euro area would pick up fast, mainly as a consequence of a rebound of investment activity and the unemployment would decline steadily from 2013 onwards (figure 13).

Although net borrowing of the government would improve more sharply in the fiscal pact scenario than in the euro bond scenario, the government debt ratio would not. The latter would be even slightly higher in the fiscal pact scenario than in the low interest scenario, because nominal GDP growth would be significantly higher in the second case (figure 13).



Figure 13. Two Scenarios of Macroeconomic Performance in the Euro Area (Source: Simulations with the OEF-Model)

11. A New Deal for Europe

The transition from "finance-capitalistic" to "real-capitalistic" framework conditions, triggered by a stock market crash (e. g., 1873, 1929, 2007ff), usually takes many depressive years (e. g., 1873 to ~1890, 1929 to ~1948) as governance according to the old finance-capitalistic navigation map makes things only worse but a new map has not yet been developed. Such a transition phase calls for a New Deal which changes the direction of the navigation course even without guidance by a new theory (simply returning to Keynes will not do the job).

The dramatic events of recent months show: The attempts to restore the "financecapitalistic" game - at first by "pseudo-Keynesian" means and then by tightening austerity measures - only deepens the crisis. Preventing a slide into a downward spiral, developing a systemic concept for a sustainable recovery, and putting such a concept into practice, is almost a "mission impossible".

However, a similar challenge was met after WW II (and in part already earlier through Roosevelt's New Deal): By learning the lessons from the Great Depression, economists and politicians were able to design new framework/incentive conditions which formed the basis for the "golden age of capitalism" in the 1950s and 1960s. Why shouldn't we be able to learn the lessons before a depression takes place?

Such a concept for new "rules of the game" or for a "New Deal for Europe" has to address the following issues:

- The fears of people that their financial wealth, in particular their pension capital, will be devalued a third time since 2000, must be contained.
- Confidence must be built up that the political leaders will be able to overcome the debt crisis and the euro crisis in a stepwise process.
- The incentive structure has to be changed so as to favor entrepreneurial activities and to dampen all kinds of "finance alchemy".
- The cohesion of the EU must be strengthened, at the same time no country should be put at a disadvantage through a new crisis strategy.
- All that has to be achieved rather quickly and should not need large amounts of money.

The most urgent challenge concerns the development of a pragmatic concept for overcoming the euro crisis. Such a concept needs to stabilize interest rates in all euro countries at a sustainable level. To this end, the capability of speculators to drive up interest rates on government bonds of euro countries must be restricted.

This is necessary also for political reasons. These activities play euro countries off against each other and, hence, undermine the economic and political cohesion of the European (Monetary) Union: The more interest rates rise in the "problem countries", the lower they get in the "good countries" in particular in Germany. Instead of correctly valuating risk, bond and CDS speculation produces additional risk, in particular with respect to the EMU as a whole.

The foundation of a European Monetary Fund as sketched above should therefore be a core component of a New Deal for Europe.

Short-term speculation also causes exchange rates and commodity prices, in particular crude oil and food prices, to widely overshoot their fundamental equilibrium values. As part of new framework conditions also these prices need to be stabilized by economic policy in order to foster the real economy at the expense of "finance alchemy".

It is no coincidence that the two prices which intermediate between the real sphere and the financial sphere of the economy, i.e. the exchange rate (in space) and the interest rate (in time), were stabilized by economic policy in those periods/countries when/where the economic performance was/is particularly successful. These conditions prevailed over the

1950s and 1960s and they have also been prevailing in successful "real-capitalistic" economies like China.

The theoretical benchmark for stabilizing interest rates would be the (nominal) rate of economic growth to be expected over the medium run, for exchange rates the benchmark should be purchasing power parity of internationally traded goods and services (tradables). As an intermediate step regarding currency markets, the central banks of the US, the euro area, Japan and China (eventually also the UK and Switzerland) should commit themselves to stabilize their exchange rates within tight bands (e. g., $\pm/-2\%$), taking the averages over the recent past as means (e. g., the average exchange rates since the creation of the euro).

As regards crude oil prices (and all other fossil combustibles), one has to take into account two peculiarities. First, crude oil is an exhaustible resource the price of which needs to increase in equilibrium with the rate of interest stronger than the general price level (Hotelling rule). Second, the use of crude oil (and other fossil combustibles) is the most important cause of climate change. To compensate for these externalities, economic theory suggests that oil prices should become permanently more expensive than all other goods (which do not cause negative externalities). In reality, however, the wide fluctuations of crude oil prices bring about a waste of this resource, a deterioration of the environment and hamper investment in energy saving technologies.

Even though one cannot precisely quantify by which margin the price of crude oil (and other fossil combustibles) should rise faster than the general price level, it is clear that any steady and reliable increase of oil prices above the general inflation rate would do a better job than the market which sometimes produces price changes of 50% and more within a few months.

To give a concrete example as regards an environmentally sustainable price path for crude oil: OECD studies conclude that the price of greenhouse gas emissions should rise to 370ε per ton CO_{2-eq} if the increase in climate temperature is to be restricted to 2°C (with such a price increase one would be on the safe side of the "low carbon scenario" – EC, 2011A). At a world market price of oil price of 100\$ these additional cost would translate into an oil price for users of 248\$.

If this target is to be reached by 2020, the oil price needs to rise by roughly 12% per year. Such a stable and reliable price path can neither be brought about through emissions trading schemes nor through carbon taxes. If, however, the EU would set such an obligatory price path for all users of crude oil (primarily refiners which would then increase their output prices accordingly) by introducing a flexible tax which amounts to the difference between the world market price and the target price according to the long-term price path, a wave of investments in energy saving would be triggered, from isolation of buildings to new forms of mobility.

The reason for that is simple: These investments become much more profitable than today (in terms of avoiding opportunity costs) and the rates of return on these investments become calculable. The latter is extremely important as the amortization periods of energy saving investments are particularly long (as yet, the wide fluctuations of energy

prices and the uncertainty over their long-term development have almost systematically hampered investments in saving energy and, hence, in mitigating climate change).

In addition, such a dynamic price scheme for fossil combustibles together with a flexible energy tax would dampen demand and, hence, energy prices in world markets. As a consequence, a substantial part of the rents cashed in by the oil owning and producing countries would be redistributed to the oil consuming countries (though not to the oil consumers).

Two years ago I sketched many other components of a "New Deal for Europe" (Schulmeister, 2010b). However, as the present paper has already got longer than planned, it ends here.

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