

**From Prosperity into the Crisis  
and Back**

**On the Role of Economic Theories  
in the Long Cycle**

**Stephan Schulmeister**

# From Prosperity into the Crisis and Back

## On the Role of Economic Theories in the Long Cycle

Stephan Schulmeister

WIFO Working Papers, No. 571

November 2018

### Abstract

This essay reconsiders the interaction between the development of economic theories and economic reality since the 1920ies. I begin with the systemic cause of the financial crisis, the coincidence of three "bear markets" (stocks, real estate, commodities) which followed three parallel "bull markets". I then sketch the macroeconomic effects of the "manic-depressive" fluctuations of asset prices and show how they paved the road into the present crisis. As next step, I explain how "bulls" and "bears" are brought about. Then I sketch how the treatment of financial markets in economic theory and policy has shaped the long cycle from the financial boom of the 1920ies, the Great Depression, the post-war prosperity under "realcapitalistic" framework conditions to the "finance-capitalistic" regime since the 1970ies. The paper concludes with proposals how Europe could find roads to new prosperity. After the upcoming financial crisis there will be a window of opportunity to implement these proposals.

E-mail address: [stephan.schulmeister@wifo.ac.at](mailto:stephan.schulmeister@wifo.ac.at)  
2018/314/W/0

© 2018 Österreichisches Institut für Wirtschaftsforschung  
Medieninhaber (Verleger), Hersteller: Österreichisches Institut für Wirtschaftsforschung • 1030 Wien, Arsenal, Objekt 20 •  
Tel. (43 1) 798 26 01-0 • Fax (43 1) 798 93 86 • <http://www.wifo.ac.at/> • Verlags- und Herstellungsort: Wien  
Die Working Papers geben nicht notwendigerweise die Meinung des WIFO wieder  
Kostenloser Download: <http://www.wifo.ac.at/www/pubid/61485>

**Stephan Schulmeister**

# **From prosperity into the crisis and back**

## **On the role of economic theories in the long cycle**

**Paper presented at the FMM Conference in Berlin, October 25 – 27, 2018 „10 Years after the Crash: What have we learned?“**

This essay reconsiders the interaction between the development of economic theories and economic reality since the 1920s. I begin with the systemic cause of the financial crisis, the coincidence of three "bear markets" (stocks, real estate, commodities) which followed three parallel "bull markets". I then sketch the macroeconomic effects of the "manic-depressive" fluctuations of asset prices and show how they paved the road into the present crisis. As next step, I explain how "bulls" and "bears" are brought about. Then I sketch how the treatment of financial markets in economic theory and policy has shaped the "long cycle" from the financial boom of the 1920s, the Great Depression, the post-war prosperity under "real-capitalistic" framework conditions to the "finance-capitalistic" regime since the 1970s. The paper concludes with proposals how Europe could find roads to new prosperity. After the upcoming financial crisis there will be a window of opportunity to implement these proposals.

Keywords: Asset price dynamics,

JEL classification: B20, E44, F34, G12, O11



Stephan Schulmeister

# From prosperity into the crisis and back

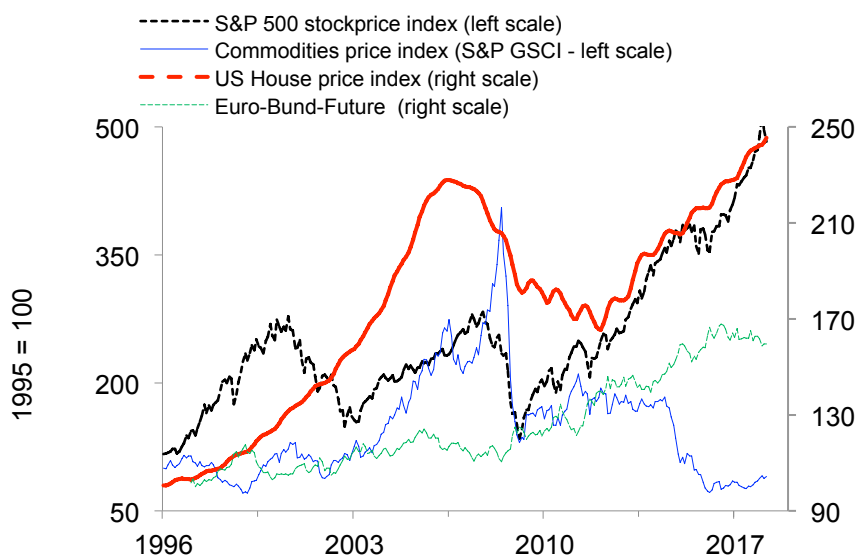
## On the role of economic theories in the long cycle

This essay reconsiders the interaction between the development of economic theories and of economic reality taking the long cycle since the 1920s as example. On the one hand, theories serve as „navigation maps“ thereby changing reality and leading occasionally into crises. On the other hand, new theories emerge in reaction to these crises, guiding economic development into new directions. The text summarizes the respective parts of my recent book “Der Weg zur Prosperität” in the shortest possible way, complemented by a series of charts.

## The financial crisis of 2008 as point of departure

This crisis was the outcome of „business as usual“ in financial markets because it was caused by the *coincidence* of three “bear markets”: House prices started to decline in late 2006, followed by stock prices and finally by commodities prices (figure 1). At the same time, „bull markets“ and „bear markets“ are the most typical feature of asset price dynamics over the medium and long run. However, a *simultaneous* devaluation of house wealth, stock wealth and commodities wealth seldom occurs, the last time this happened was in 1929.

Figure 1: Valuation of stock, commodity, real estate and bond wealth



Source: Yahoo Finance, Case-Shiller, Standard & Poors, onvista

The mutually reinforcing effects of simultaneous bear markets become evident if one compares the period 2007/2008 to that of 2000/2002 (figure 1): In the latter case, the strong devaluation of stock wealth was to a great extent compensated by the revaluation of real estate wealth (a recession followed nevertheless). Over the past 9 years, three simultaneous bull markets have once again built up the potential for a new crisis (figure 1).

### **Macroeconomic effects of “bulls” and “bears”**

The long swings of asset prices impact upon the real economy through their valuation effects. Rising stock prices, e. g., increase the financial wealth of their owners (also indirectly via pension and college funds, etc.). If they trust in the permanent character of the (re)valuation gains they will increase their expenditure as US households did during the 1990s (these effects have become smaller due to the bear markets 2000/2002 and 2007/2008).

The expansionary effects of bull markets feed back on the strength of the asset appreciation, in particular, if the latter does not increase other people's liabilities or costs at the same time (e. g., if the bull market concerns stocks or privately owned houses). By the same token, bear markets dampen the real economy. A fall in the value of savings for pensions or college costs, e. g., will cause households to save more (consume less) out of their current income.

In the case of exchange rates one has also to take into account the effects of appreciation and depreciation trends on terms of trade (flows) and on the burden of international debts (stocks). These effects are strongest in the case of “bulls” and “bears” of the dollar exchange rate since commodities are priced in dollars and most international debts, in particular of emerging countries, are held in dollars.

As a consequence, any dollar appreciation (trend) improves “ceteris paribus” the terms of trade of net commodity exporters (at the expense of net importers) and appreciates dollar debts/assets. The opposite holds in the case of a dollar depreciation (trend). The net effect of the related redistribution processes on the global economy is mostly negative as the demand of winners rises slower than the demand of losers fall.

This is particularly true in the case of strong oil price changes. When they rise as in the 1970s (in reaction to the preceding dollar depreciations), the additional demand of oil-exporting countries falls short of the decline in the demand of industrial countries. However, when oil prices fall strongly (as 1984/86 or 2014/16), the net demand effect is again negative.

The strongest influence on the real economy exert wide house price fluctuations: Who owns already a house feels richer, increases consumption and/or takes up additional credits using the rising house value as collateral and real estate developers or private speculators buy and/or build houses as speculation vehicle. These activities are fettered by financial innovations which enable creditors to bundle claims against house owners in “asset backed securities” (ABS) and sell them as “collateralized debt obligations” (CDO).

When the bull market tilts into a bear market, the values of houses often sink below the value of the respective credits, and the owners (have to) leave their home. As a consequence, also the ABSs and CDOs become (almost) worthless. This wealth meltdown wipes out equity and forces the losers to radically cut expenditures.

By the end of the bear market, asset management firms like BlackRock or Blackstone buy houses at low prices and rent them out, partly to their former owners. When a new bull market takes off, these investors profit from the revaluation. Hence, the redistribution processes during bulls and bears markets are particularly pronounced in the case of real estate wealth.

In accounting terms, the effects of asset price fluctuations are as follows. Any appreciation extends balance sheets, blowing up the equity of (net) asset holders and wiping out equity of (net) liability holders (e. g., of dollar debtors in the case of a dollar appreciation). The opposite holds for a depreciation process (Koo, 2009). These macroeconomic effects of “bulls” and “bears” have become more pronounced due to the dominance of IFRS accounting standards (assets and liabilities have to be valued at their current market values).

The different channels through which the long swings of stock and bond prices, exchange rates, commodities prices and house prices impact upon the real economy are not considered in macroeconomic theory. “New Classical Macroeconomics” and “New Keynesian Economics” exclude the possibility of “bulls” and “bears” by construction.<sup>1)</sup>

Keynes discussed in Chapter 12 of his “General Theory” the role of uncertainty, emotions and social interaction like herding as fundamental reasons for the specific instability of financial markets, yet, he did neither provide a theoretical elaboration of his insights nor integrate them into his general theory.<sup>2)</sup>

## **Long swings of asset prices and the road into the crisis**

Over the 1950s and 1960s, the Bretton Woods system provided the global economy with stable exchange rates, a core component of a “real-capitalistic” regime which focuses striving for profits on activities in the real economy. However, the confidence in the dollar became progressively weaker due to its double role as national and as world currency (Schulmeister, 2000). At the same time, neoliberal economists called for free currency markets since destabilizing speculation cannot survive (Friedman, 1953).

---

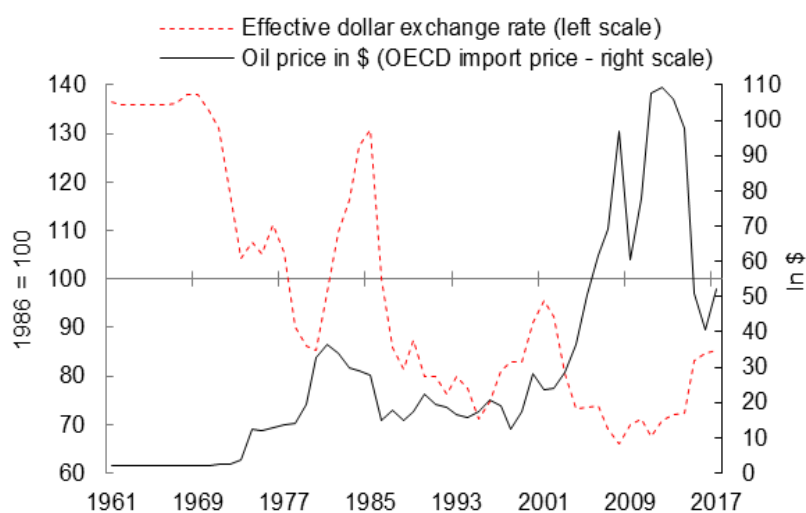
<sup>1)</sup> Equilibrium theory can take into account „bubbles“ which, however, are essentially different from bull markets as empirically observed: A bubble represents a non-fundamental, exploding equilibrium price path (equilibrium in the sense that expectations of rising prices are fulfilled), whereas a bull market leads an asset price from undervaluation (relative to the fundamental equilibrium) to overvaluation, yet, limited by the repercussions of these deviations on the real economy. Agents take these feed-back effects into account. Hence, they know from the very beginning that any bull market comes to an end. In addition, equilibrium theory cannot explain the phenomenon of bear markets.

<sup>2)</sup> In a nutshell, these insights provided the microeconomic foundation of Keynes' macroeconomic theory („homo humanus“). However, most „Keynesians“ did not take Keynes' insights about the importance of uncertainty, emotions and social interactions serious. The main exception are „Post-Keynesians“, in particular Hyman P. Minsky. However, also Minsky dealt mainly with booms in credit markets and not with everyday business in financial markets of all types, namely, self-referential „money making“ through speculation (see Schulmeister, 2018, chapter 5).

In August 1971, the US let the system of fixed exchange rates collapse (figure 2): During the subsequent bear market, the dollar lost 25% of its value vis-à-vis the other SDR currencies (DM, franc, pound, yen). This development hit those countries most which exported exclusively crude oil, priced and paid in dollars: the OPEC countries in the Middle East.

In October 1973, OPEC took advantage of the Yom-Kippur-war to fight back by putting through a tripling of crude oil prices (figure 2 - the oil boycott served as bluff). The first "oil price shock" led into the first post-war recession in all industrial countries. As a consequence, not only inflation, but also unemployment rose significantly. This constellation was then taken as disprove of the Phillips curve and, hence, of Keynesian economics altogether (see below).

Figure 2: Dollar exchange rate and oil price fluctuations



Source: OECD, IMF

In a second bear market, the dollar lost again 25% of its value between 1976 and 1979, leading to the second "oil price shock" in 1979 (again, OPEC took advantage of political turbulences like the coming to power of the Ayatollahs). It was again followed by a recession. Since 1972, the oil price had risen by a factor of 11. The two dollar bear markets caused also the prices of other commodities to increase strongly. This inflationary pressure spilled over to the prices of manufactures. As a consequence, the price level in overall world trade almost quadrupled during the 1970s (figure 3). The inverse development of the dollar exchange rate and world trade prices is, however, to a large extent also due to the conversion of export and import prices of manufactures from the different national currencies into dollars.

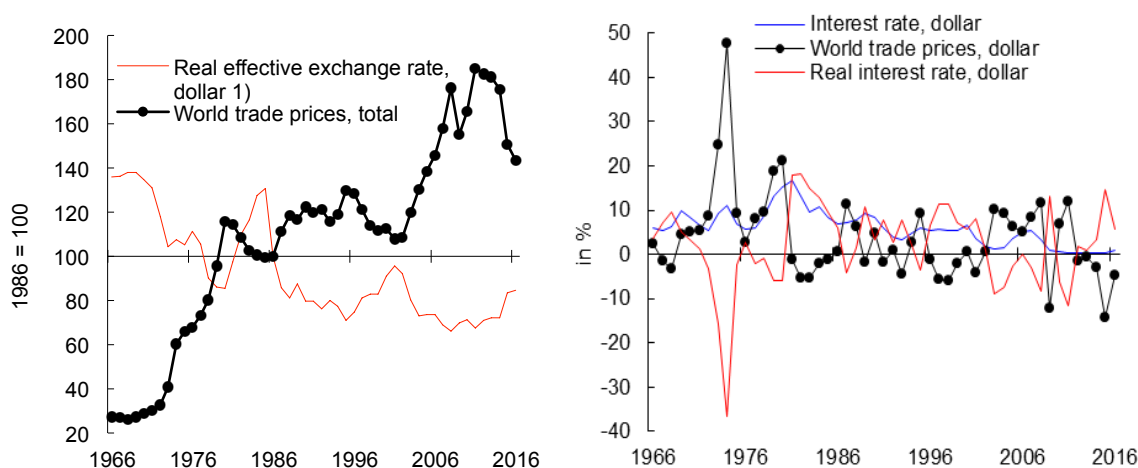
This statistical effect is of enormous economic importance: As most international debts are held in dollars, any persistent dollar depreciation is associated with negative real interest rates



(approximated as difference between the nominal dollar rate – LIBOR – and the annual changes in world trade prices in dollar terms).

To put it concretely: Exports of Non-US-countries to countries other than the US, earned DM, Yen, etc. whose dollar value rose strongly over the 1970s. In particular the “tiger economies” of that decade like Mexico, Argentina, Brazil took advantage of this valuation effect: They incurred more and more dollar debts to finance their import surplus (which helped industrialized countries struggling with two “oil price shocks”). This behaviour seemed rational as the falling dollar depreciated dollar debts. At the same time, the “petro dollars” of oil exporters, deposited in London, were “recycled”, mainly to Latin American countries.

Figure 3: Dollar exchange rate, world inflation and the real interest on a dollar debt



1) Vis-a-vis DM, pound, franc, yen.

Source: IMF, WIFO

As reaction to the acceleration of inflation – fuelled by the dollar depreciations and triggered by the second „oil price shock“ – monetary policy increased interest rates like never before, most strongly in the US.<sup>3)</sup> Hence, traders expected an appreciation of the dollar (also because it had become strongly undervalued) which was finally triggered by the election of Ronald Reagan as president of the US in November 1980.

Over the following five years, the strongest dollar bull market ever took place (figure 2). It appreciated international dollar debts, which Latin American (but also African) countries had accumulated during the 1970s under completely different conditions: Between 1979 and 1981, the real interest on an international dollar debt jumped from -6% to +18% (figure 3). One

<sup>3)</sup> This policy was in line with monetarist theory and with the „trivial-Keynesian“ IS/LM-approach. However, by raising interest rates one does not *specifically* dampen inflation but the economy as a whole (which will then also reduce inflation). Such a strategy raises interest payments and, hence, production costs due to the interest rate accelerator: If, e. g., the interest rate rises from 5% to 8%, interest payments rise by 60% (in case of bank credits at flexible rates).

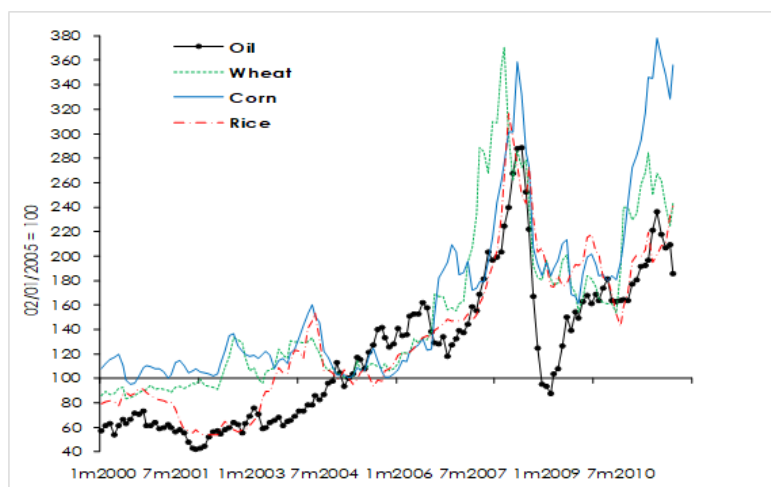
year later, the international debt crisis broke out, which dampened the real economy in these countries for more than a ("lost") decade.

The increasing overvaluation of the dollar caused the bull market to tilt 1985 again into a bear market. Until 1995, the dollar lost almost 50% of its value, providing relief for international dollar debtors (figures 2 and 3): Dollar prices in world trade picked up and the real interest fell between 1985 and 1987 by almost 14 percentage points.

Over the 1990s, the economic performance of the US improved relative to Europe and Japan, due to the undervaluation of the dollar and the expansionary policy of the Clinton administration. In 1995, the second dollar bull market took off: World trade prices started to fall, the real interest on an international dollar debt jumped from -3,4% to +11,3% (figure 3). As a consequence, the booming economies in East Asia, which had incurred rising current account deficits, slid into a liquidity crisis in 1997/98.<sup>4)</sup>

The subsequent dollar bear market (figure 2) induced a strong rise in world trade prices: Interest rates on an international dollar debt became negative again, relaxing the financial crises of emerging market economies (figure 3).

Figure 4: Bull and bear markets of commodities futures prices



Source: NYMEX, CBOT

Sequences of bull and bear markets do not only characterize the dynamics of crude oil prices but of other commodities prices as well. This is particularly true for the last 15 years when financial „investors“ become increasingly active in trading commodities derivatives of all kinds. The parallel price movements of such different commodities like crude oil, wheat, corn and rice before and after 2008 indicate the irrelevance of the „efficient market hypothesis“ (EMH) and the importance of „bulls“ and „bears“ in blowing up asset values before the crisis and melting them down during the crisis (figure 4).

<sup>4)</sup> The „tiger economies“ ran out of dollar liquidity to service their dollar debts. As their production structure was much better than that of Latin American countries in the early 1980s, they could overcome the crisis rather fast.

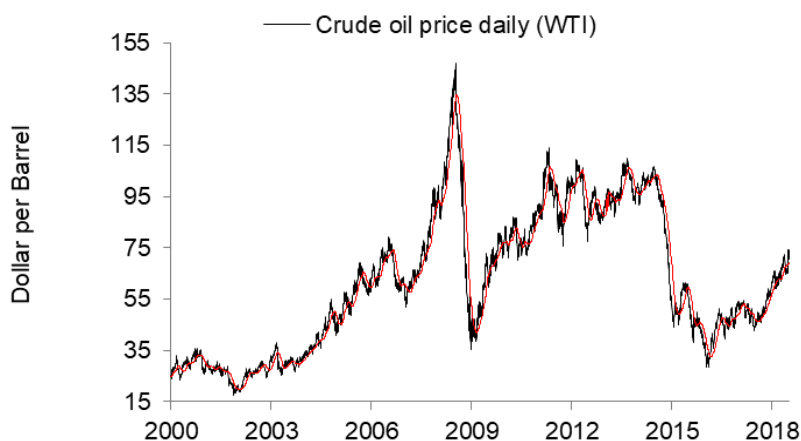
To summarize: Bull and bear markets are the most characteristic outcome of a "finance-capitalistic" system which shifts striving for profits from the real economy to activities in the financial sphere ("let your money work!").

## How bull and bear markets are brought about

Asset prices fluctuate almost always around "underlying" trends.<sup>5)</sup> The phenomenon of "trending" repeats itself across different time scales ("self-similarity"). E. g., there occur trends based on tick or minute data as well as trends based on daily data (figures 5 to 8).

"Technical" or "algo(rithmic)" trading aims at exploiting the trending of asset prices. In the case of *trend-following* moving average models, 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). By contrast, *contrarian* models try to profit from trend reversals and, hence, change open positions when a trend "loses momentum".

Figure 5: Trending and speculation in the crude oil futures market



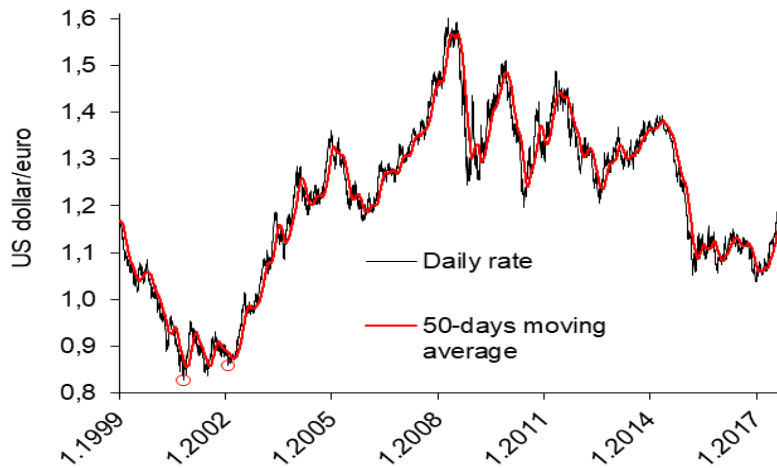
Technical models are applied to price data of almost any frequency (figures 5 to 8). Due to the increasing use of intraday data, algo trading has become the most important driver of financial transactions. They rose from 15,5 times of world GDP to 72,4 times in 2007, declined in the aftermath of the financial crisis, but then picked up in Europe again (in the US, the Frank-Dodd-Act of 2010 contributed to a decline relative to GDP – figure 9).

There operates an interaction between trending of asset prices and algo trading. On the one hand, traders use different models to exploit price runs, on the other hand, the aggregate behaviour of all models strengthen and lengthen the price runs.

<sup>5)</sup> Empirical research on asset price dynamics is documented in *Schulmeister* (2008 and 2018, chapter 9).

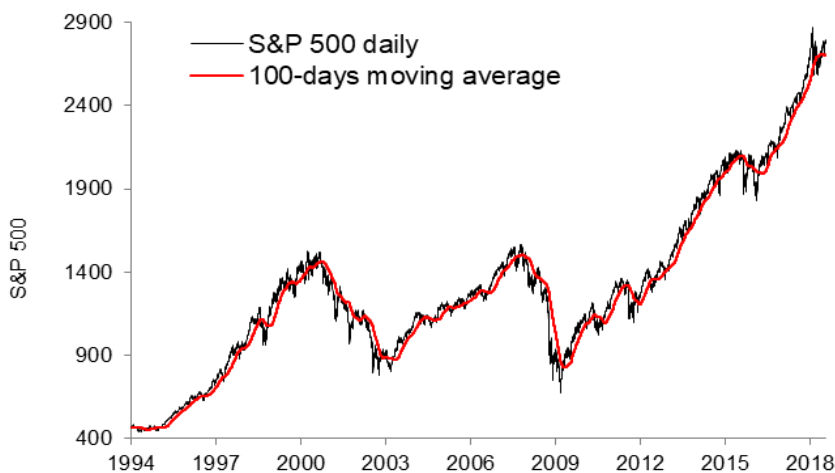
Figure 6: Trending and speculation in the foreign exchange market

Daily US dollar/euro exchange rate



Long-term price trends result from the following process. "Mini-trends" (e. g., based on minute data) add up to one trend based on 10-minute data. Several of these trends accumulate to one trend based on hourly data, and so on. Over an extended period of time (often several years), upwards (downward) trends last longer than counter-movements, causing the price to rise (fall) in a stepwise process ("bulls" and "bears").

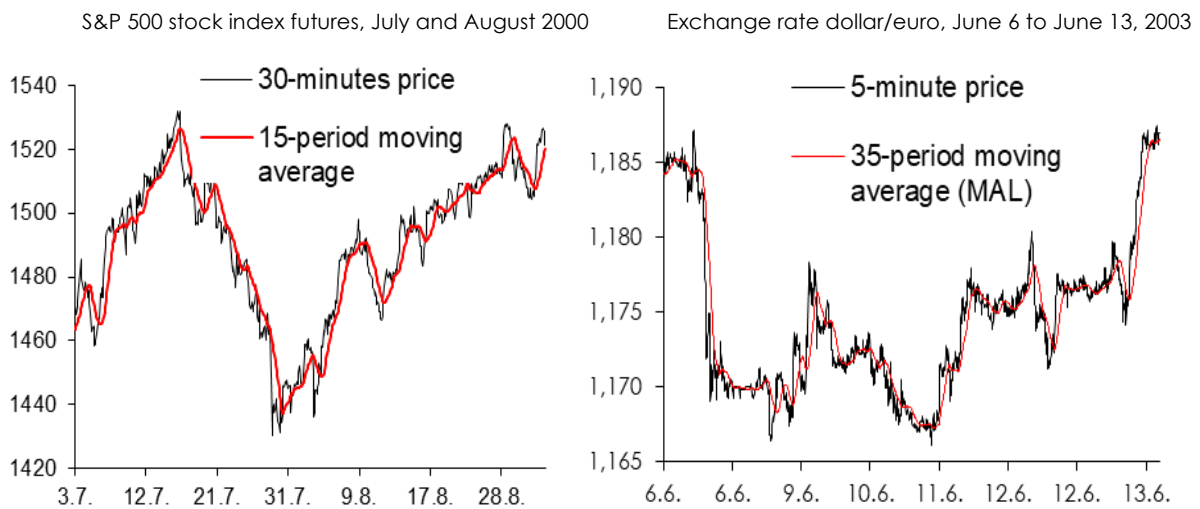
Figure 7: Trending and speculation in the US stock market



As a consequence, all important asset prices like exchange rates, stock and bond prices as well as commodity prices fluctuate in irregular cycles ("long swings") around their fundamental equilibrium without any tendency to converge (figures 1, 2, 4 and 5 to 8).

This empirical evidence completely contradicts the expectations of equilibrium theory according to which asset prices should - in reaction to news - jump to their new fundamental equilibrium (there should be no "trending"). The exploitation of trending across time scales explains why the long swings of asset prices have become wider when at the same time trading has become progressively faster.

Figure 8: Intraday asset price dynamics



The pattern of asset prices can be explained as result of the following trading behaviour.

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. When an upward (downward) trend loses momentum, *contrarian* models start to open short (long) positions, thereby contributing to a trend-reversal.

Most of the time there prevails an expectational bias in the market, in favour of or against an asset. Such a bias reflects the – optimistic/bullish or pessimistic/bearish – market sentiment. News in line with the prevailing bias get higher recognition and reaction than news which contradict the market mood. This behaviour causes price runs in line with the "market mood" to last longer than counter-movements, bringing about "bulls" and "bears".

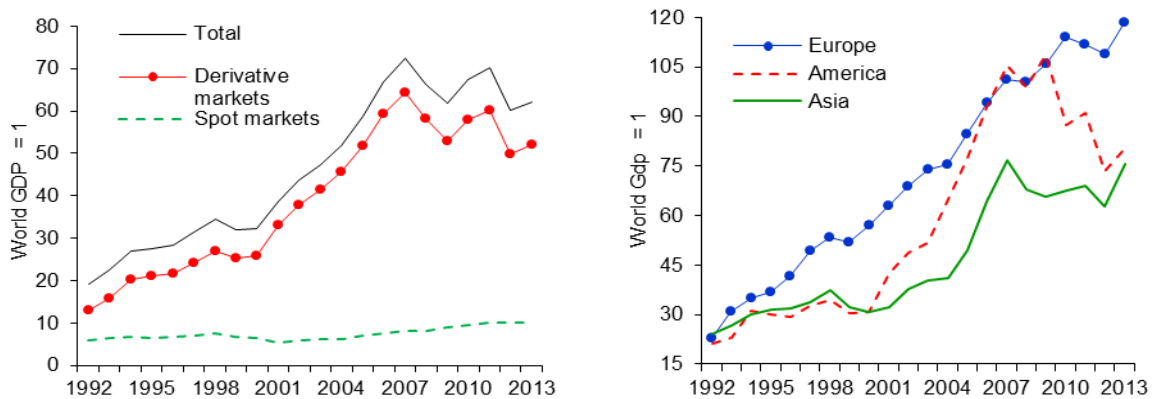
The extent to which the empirical facts contradict market efficiency theory is amazing.

Most transactions are triggered by technical models which disregard market fundamentals and derive trading signals exclusively from past prices. If these models were on average profitable, assets markets would not even be weakly efficient. If, however, these models would be unprofitable, then the concept of “rational expectations” is at stake.

In addition, directional expectations formation, the role of uncertainty, emotions, social interaction and the related market sentiments contradict the most fundamental assumptions of equilibrium theory. The trending of asset prices is just an expression of the behaviour of the “homo humanus” which is particularly pronounced in financial markets.

Finally, the sheer volume of financial transactions cannot be explained by mainstream theory since under rational expectations, there should not exist so many trading opportunities.

Figure 9: Financial transactions in the world economy



## On the role of economic theories in the long cycle

How could a theory remain dominant for decades whose most fundamental assumptions and conclusions cannot be reconciled with the empirical evidence, in particular, as regards those markets which come closest to the optimal market of economic theory?

In the following, I try to address this puzzle by reconsidering the interaction between economic developments and theory production as well as the conflict between recognition and interest, explanation and justification to which economists are to a larger extent exposed than other scientists (Schulmeister, 2018, chapter 8 and 19).

The abatement of the revolution of 1848 was followed by a period of strong growth of the real economy (railways, construction), ideologically based on “laissez-faire liberalism”. Marx and Engels explained the rising inequality and the misery of the working class as necessary outcome of capitalism which must be overthrown on the basis of (their) socialist theories.

Together with their (real) wealth grew the temptation of “industrial capitalists” to (also) become “money capitalists” (Marx), e. g., to get even richer through speculation in the stock

market, but also in real estate. By the late 1860s, stock and house prices started to rise more and more. The finance-capitalistic boom ended abruptly with the crash of 1873: Both bull markets tilted into bear markets leading into the "long depression."

On the academic level, "laissez-faire-theories" came under attack, instead, concepts became popular which stressed the role of economic actors as social beings and which called for an active state, be it through building up a social state ("Kathedersozialisten" like Gustav Schmoller), be it through (protectionist) industrial policy (e. g., Friedrich List). In addition, also the more radical socialist/Marxist theories influenced the economists' debates.

The longer the depression lasted, the more oppressing became the social problems, and the bigger became the attractiveness and the power of the workers' movement (in 1875, the "Sozialistische deutsche Arbeiterpartei" was founded). As a reaction, the basic components of the welfare state were introduced in the 1880s, first in Germany under Bismarck and then in most other European countries (health and pension insurance).

The improved confidence in the state, new investment opportunities through implementing new technologies (electricity and chemistry), stable financial conditions through fixed exchange rates (gold standard) and low interest rates, and the related wave of globalisation contributed to the real-capitalistic expansion of the "belle époque" (~1890 to 1914). This was particularly true for Germany where all kinds of futures contracts were banned by law in 1896 (after a wave of wheat speculation had collapsed).

Over this period, neoclassical economics became the paradigm in economics. This theory had been developed since the 1870s (independently) by William Jevons, Karl Menger and Leon Walras and is strictly based on the interaction of individual agents in markets. In ideological terms, the concept of the "homo oeconomicus" and, hence, of individualism can be considered a reaction to the rising influence of socialist theories.

After WWI, the dominance of the "free-market-view" facilitated the development of the strongest stock bull market in history: Over only 4 years – between 1925 and 1929 - stock prices almost quadrupled in the US, people took up more and more credits to finance buying stocks and to "let their money work". The boom then spilled over to all other industrial countries.

The crash of 1929 caused at first ("only") a recession, budget deficits widened and economic policy followed the advice of economists to adopt an austerity policy (according to the "laissez-faire" theories which always prevail in finance-capitalistic phases). This policy paved 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 were so catastrophic that also the learning process enforced by this crisis was deep. It resulted in a new macro-economic theory (provided by Keynes), an active economic policy focusing on full employment, in stable exchange rates, de-regulation of goods markets, but strict regulation of financial markets. In addition, two other developments promoted prosperity. First, confidence was strengthened through

building up the welfare state. Second, there prevailed a tight coherence between the technological paradigm (Fordism) and the economic paradigm (Keynesian welfare model).

The success of the "European Social Model" laid the ground for its own decline: Full employment and the enlargement of the welfare state shifted economic and political power from business to unions which asked for (more) employee participation and enforced a substantial redistribution in favour of wages (figure 12). The "Zeitgeist" shifted to the left (1968, etc.) and brought social-democratic parties to power. The environmental movement took off and attacked the capitalistic growth model as obsolescent (Club of Rome 1972).

All these developments caused "big business" to support the neoliberal movement against full employment, Keynesianism and the welfare state.<sup>6)</sup> The stepwise realization of the monetarists' demand for de-regulation of financial markets transformed the system from a real-capitalistic into a finance-capitalistic regime (for the characteristics of both types of capitalism as well as their succession over time see *Schulmeister*, 2018, chapter 8).

### **Planning, organizing and enforcing the neoliberal paradigm**

All important steps on the long way from prosperity into the present crisis – from moving to "flexible exchange rates in 1971 to the financial crisis of 2008 and the subsequent euro crisis – were guided by the recommendations of neoliberal theories.<sup>7)</sup> Yet, this "Weltanschauung" still dominates at the academic level, in international organizations (European Commission, ECB, IMF, OECD), in governmental institutions (ministries), in the media and in politics.

The main reason for the persistence of neoliberalism lies in its history: Never before had the enforcement of an economic paradigm so systematically been prepared, realized and anchored in the minds of the elites. This process began during the Great Depression.

In 1931, Hayek became professor at the London School of Economics (LSE) at the age of 32 and turned soon into the most famous opponent of Keynes in the debates over the role of economic policy in the Great Depression. After the overwhelming success of Keynes' "General Theory" (1936), Hayek became an outsider within the economists' profession. He withdrew from working on "pure" theory and concentrated instead on planning a movement against the foreseeable advance of the welfare state, promoted by "the socialists" and legitimized by Keynes' theory.

---

<sup>6)</sup> As early as 1943 did Michal Kalecki foresee the long-term political consequences of full employment policy: »Lasting full employment is not at all to their [business leaders] liking. The workers would 'get out of hand' and the 'captains of industry' would be anxious to »teach them a lesson« (...). In this situation a powerful alliance is likely to be formed between big business and *rentier* interests, and they would probably find more than one economist to declare that the situation was manifestly unsound.« (*Kalecki*, 1990, p. 355).

<sup>7)</sup> One has to distinguish between (at least) three neoliberal schools, the Austrian school (Hayek and Co.), the Chicago (neoclassical/monetarist/New Classical) school (Friedman, Lucas and Co.) and the German ordoliberal school (one could also add the Virginia school with Buchanan as leading figure which, however, is a close „ally“ of the Chicago school). These schools differ fundamentally in their assumptions and methods, however, they arrive at practically the same policy recommendations (see *Schulmeister*, chapter 6).



Hayek participated in a first meeting of like-minded economists and sociologists in Paris in August 1938 (during this "Colloque Lippmann" the term "neo-liberalism" was coined). During the war, Hayek provided the ideological fundament for the neoliberal movement with his "Road to Serfdom" (1944). The book was a great success, in particular among wealthy people in the US who felt threatened by Roosevelt and his New Deal policy. For decades the book has served as the neoliberal "catechism".

As next step, Hayek founded in 1947 the Mont Pelerin Society (MPS). This network links together top scientific economists ("original thinkers" in Hayek's words - as yet, eight MPS members got the "Nobel prize"), other intellectuals working in academia, media or think tanks ("second-hand dealers in ideas"), politicians (like Ludwig Erhard) and (very) wealthy people - the latter were needed to finance the activities of the MPS, the growing number of think tanks and the university chairs of prominent members like Hayek himself.

Hayek took the "Fabian Society" as model for the neoliberal movement. This leftist group of social reformers had successfully changed values and attitudes in the British society between the 1880s and the 1920s. The "Fabians" tried to promote the welfare state by influencing the public opinion, directly through their publications and indirectly via the education system (e. g. the LSE was a Fabian foundation, dedicated to "the betterment of society").

In "The Intellectuals and Socialism" (1949), Hayek stated that also the neoliberals should focus on influencing the intellectuals (like the socialists) because "once the most active part of the intellectuals has been converted to a set of beliefs, the process by which these become generally accepted is almost automatic and irresistible" (quoted in Jones, 2012, p. 80).

Hayek was convinced that "the building of a free society" through defeating Keynesianism and weakening the welfare state could actually be achieved even though this might take "two or three generations".<sup>8)</sup> As first step, one needed anti-Keynesian theories, produced by the "original thinkers", which would then be "translated" in the language of ordinary people by the "second-hand dealers in ideas" and promoted by think tanks.

In the 1950s and 1960s, Hayek, Friedman, Stigler, Becker, Coase and Buchanan (to name only the most prominent MPS-members and - later - "Nobel laureates") produced a great variety of theories, directed against the then dominant economic paradigm and policy:

- Financial speculation is predominantly rational and, hence, stabilizing since destabilizing speculation would not survive (*Friedman, 1953*). This (tautological) "proof" legitimated later the deregulation of financial markets.
- Keynesian fiscal policy has little effect since households base their consumption on their "permanent", and not on their current income (*Friedman, 1957*).
- In his "opus magnum", Hayek called for the restriction of any activities of the state since the latter should only protect the individual liberty of its citizens (*Hayek, 1960*).

---

<sup>8)</sup> Friedman was more optimistic. He stated in his article "Neo-Liberalism and Its Prospects": "The stage is set for the growth of a new current of opinion to replace the old, to provide the philosophy that will guide the legislators of the next generation even though it can hardly affect those of this one." (quoted in Jones (2012), p. 85).

- George Stigler (University of Chicago) developed the concept of "regulatory capture" according to which market regulations are (ab)used by lobby groups (*Stigler, 1971*).
- At the University of Virginia, James Buchanan and Gordon Tullock built up the "public-choice school": Politicians act mainly their private interest (*Buchanan – Tullock, 1962*).
- Ronald Coase (University of Virginia, after 1964 University of Chicago) showed that bargaining as part of the market process can solve the problem of social costs (*Coase, 1960*). The theorem is still used as argument against an active environmental policy.
- Gary Becker (University of Chicago) built up the human capital theory and later generalized the principle of the "homo oeconomicus": All human relationships as love, marriage, parenthood, etc. are guided by rational utility maximization (*Becker, 1976*).
- Friedman "proved" (together with Anna Schwartz) that the Great Depression was not caused by the stock market crash of 1929 and the subsequent austerity policy but by the central bank, i. e., by the state (*Friedman – Schwartz, 1963*).

The "original thinkers" did not (conspiratively) coordinate their work, by contrast, they used different assumptions and methods, yet, they reached similar conclusions: What guided their efforts was their common interest in attacking Keynesianism and the welfare state.

The presidential address of Milton Friedman at the meeting of the American Economic Association in 1967 signalled the start of the decisive attack (*Friedman, 1968*): Full employment policy is not only useless but detrimental because there exists a natural rate of unemployment. Any attempt to push unemployment below its level results in higher inflation.

The whole argument was tautological: If one assumes that output is determined in real terms through market equilibria (vertical Phillips curve), then any monetary impulse can only have inflationary effects (real effects are only possible if one assumes temporary money illusion on behalf of workers - as Friedman did).

However, the construction of Friedman's model was brilliant: He took the modified Phillips curve (*Samuelson – Solow, 1960*) as point of departure, which – erroneously – implied that economic policy can choose between high inflation and low unemployment (and vice versa). Such a choice turns out to be non-sense if one takes interest rates into account: Any rise in inflation causes nominal interest rates to rise and interest payments on outstanding debts to rise even faster so that investments and employment will decline with some lag.<sup>9)</sup>

In addition, Friedman's natural rate concept addressed the most oppressing macroeconomic problem of that time, rising inflation, and hence, the general public. His theory implicitly blamed full employment policy and the trading unions for causing this problem, attracting support from industrialists *and* rentiers (see the Kalecki quote mentioned above).

---

<sup>9)</sup> To illustrate this accelerator effect: If inflation rises by 2 percentage points causing the nominal interest rate to increase from 4% to 6%, then interest payments rise by 50% (for credits at flexible rates). Phillips himself had (plausibly) interpreted the inverse relationship between the change in wages and unemployment as reflecting just the (unidirectional) influence of the employment situation on the bargaining power of unions (*Phillips, 1958*).

For more than a decade, monetarism became the dominant macroeconomic paradigm based on the quantity theory of money. However, being neoclassical thinkers and, hence, believing in "money does not matter", monetarists overlooked a trivial, yet fundamentally important fact: Money is not only used for transactions with goods and services ( $PQ \times Q$ ) but also with financial assets of all kinds ( $PF \times QF$ ):

$$M \times V = PQ \times Q + PF \times QF$$

Since the volume of financial transactions is many times bigger (and more unstable) than the volume of transactions with goods and services (figure 9), a stable relationship between money supply and  $PQ \times Q$  is a theoretical impossibility (*Schulmeister*, 2018, p. 88f and p. 157f).

The collapse of the Bretton Woods system and the following dollar depreciation induced the first "oil price shock" followed by the first global recession since the 1930s. The "original thinkers" then used the coincidence of rising unemployment and rising inflation as disprove of the Phillips curve and of Keynesian theory in general.

The "battle over the Phillips curve" marked the decisive defeat of Keynesian economics.<sup>10)</sup> As substitute, the old general equilibrium theory was restored and complemented by "rational expectations" (*Lucas*, 1972): It is assumed that agents form their expectation according to the "true model" which is the model of the rational expectations economists themselves (a Freudian projection). As some kind of terminological twist, Lucas and Co. called their approach "New Classical Macroeconomics" instead of "old neoclassical microeconomics".

Once any kind of non-rationality, uncertainty, social interaction and emotions were removed from the economic theorist's world, one no longer needed to account for different economic agents.<sup>11)</sup> Hence, the "new classical macroeconomists" constructed "dynamic general equilibrium (DSGE) models" based on "representative agents", preferably eternally living.

In this world, expansionary fiscal policy is useless (due to "Ricardian equivalence" – *Barro*, 1974) as is any kind of macroeconomic policy ("Lucas critique" – *Lucas*, 1976). Business cycles can only be caused by technological shocks ("real business cycles" – *Kydland - Prescott*, 1982).

Based on a RBC model, *Cole – Ohanian* (2004) concluded that Roosevelt's New Deal was harmful (the recovery would have been much stronger had real wages not risen so fast). *Prescott* went even further and blamed the New Deal for having caused also the Great

---

<sup>10)</sup> The theoretically flawed concept of the modified Phillips curve (the best example for the overconfidence of "Trivial-Keynesians" in macroeconomic "fine tuning") facilitated the neoliberal counter-attack. Nevertheless, using the coincidence of rising inflation and unemployment in 1974/75 as disprove of the Phillips curve and of Keynesian theory as a whole was a trick in three respects. First, the simultaneous rise of inflation and unemployment was due to the first „oil price shock“, the modified Phillips curve, however, referred to a closed economy (*Samuelson – Solow*, 1960). Second, by fighting for „flexible“ exchange rates economists like Friedman had themselves contributed to the simultaneous rise in inflation and unemployment (*Schulmeister*, chapter 7). Third, Keynes himself had warned against fine tuning an inherently unstable economy. Instead, he called for a radical restriction of financial speculation.

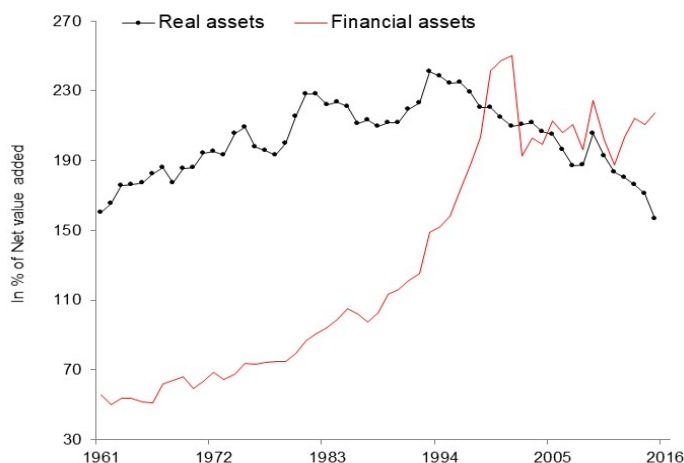
<sup>11)</sup> All the more as one can aggregate the demand function not even of two persons if they have different preferences (Sonnenschein–Mantel–Debreu condition, already discovered in the 1950s (*Keen*, 2011, p. 56ff).

Depression: He interprets the rise in unemployment as decline in average working time, and because people had worked less, GDP declined.<sup>12)</sup>

Once the "original thinkers" had produced economic theories, the intellectuals ("second-hand dealers in ideas") should sell them to the public. As Hayek had explained: "There is little that the ordinary man of today learns about events or ideas except through the medium of this class [of intellectuals]." (Hayek, 1949, quoted in Jones, p. 79).

In order to use the intellectuals as "medium", more and more neoliberal think tanks were founded like the "Institute for Economic Affairs" in the UK, the "Liberty Fund", the "Heritage Foundation" or the "Cato Institute" in the US (to mention only the biggest "tanks"). Their number grew particularly fast after the break-through of the neoliberal offensive in the 1970s. Since 1981 neoliberal think tanks are linked together through the "Atlas Network", it comprises today almost 500 institutions all over the world ([www.atlasnetwork.org](http://www.atlasnetwork.org)).<sup>13)</sup>

Figure 10: Real and financial accumulation of non-financial business in Germany



Source: Bundesbank, destatis, WIFO

## Real capitalism, finance capitalism, employment and the public debt

The neoliberal "navigation map" dampened economic growth and caused unemployment as well as the public debt to rise through two channels. First, it led into (great) recessions as results of "oil price shocks" (like 1973 and 1979) or of financial crises (like 1982 and 2008). Second, neoliberalism legitimizes a finance-capitalistic regime in which the instability of

<sup>12)</sup> „In the 1930s, labor market institutions and industrial policy changed normal market hours. I think these institutions and actions are what caused the Great Depression." (Prescott, 1999, S. 27). Just two facts instead of a comment: First, Roosevelt got president only in 1933 when the rise in unemployment actually came to a halt. Second, real GDP increased in the US between 1933 and 1937 by 43,1%. Lucas, Kydland and Prescott (also) got the Nobel prize.

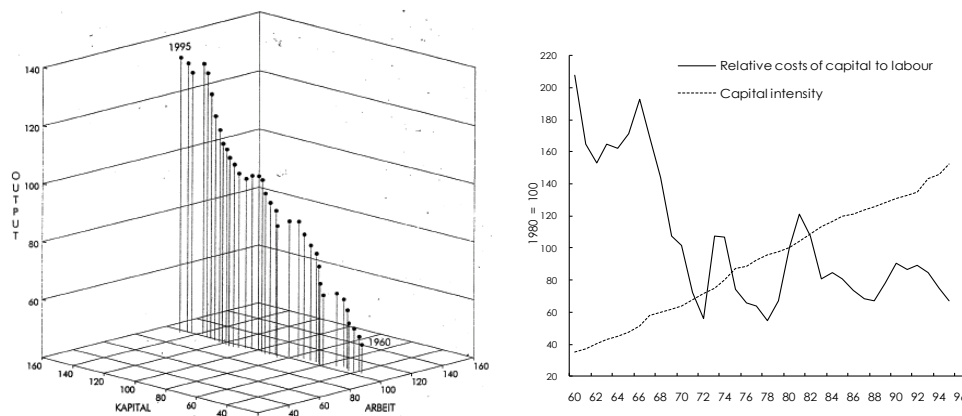
<sup>13)</sup> For details of how the neoliberal master minds organized the advancement and diffusion of their ideology see Walpen, 2004, Burgin, 2012, and Jones, 2012. The essence of this literature is summarized in Schulmeister, chapter 6.

exchange rates, commodities prices, interest rates and stock prices shifts striving for profits from the real to the financial economy. Unemployment (and precarious employment) and the public debt (as well as rising inequality) are just symptoms of this dysfunctional system.

Under real-capitalistic conditions (until the 1970s) non-financial business focused on the accumulation of real assets: At stable exchange rates, commodities prices and - in Europe - stagnating stock prices as well as interest rates below growth rates, financial speculation did not make sense (figures 2, 14, 15). Since the 1970s, however, the value of financial capital rose much faster than that of real capital (at current asset prices, hence, influenced not only by real/financial investment but also by the swings of asset prices - figure 10).

The predominance of financial accumulation necessarily dampens job creation and increases the public debt at the same time (this "twin problem" is discussed more in detail in *Schulmeister, 2018, chapter 10*). This relationship cannot be seen with "neoliberal glasses".

Figure 11: Input, Output and relative factor prices in the overall economy: Germany



Source: OECD, WIFO

The mainstream explanation of labour demand rests on the (neoclassical) production function where capital and labour 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) reveals the following:

- Capital intensity (capital-labour-ratio) grows monotonically; the shift to ever more capital-intensive technologies is irreversible because it is driven by the technical progress.
- The capital-labour-ratio is unrelated to shifts in the factor price ratio (figure 11).
- Labour 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 run, the factor input ratio is fixed; if the output is to be increased, labour and capital inputs need to be raised proportionally, hence, short term demand for labour will be mostly influenced by expectations concerning demand in the goods markets.
- In the long run, capital intensity increases as a function of technical progress rather than of factor prices: more capital per labour is associated with a different quality of capital, meaning that labour productivity rises with capital intensity.

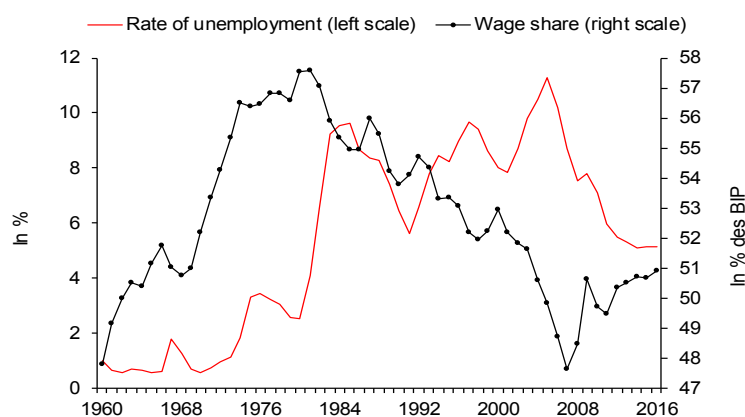
An increase in output can be realized by either of two ways (or a mixture of both):

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

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.

Figure 12: Wage share and the rate of unemployment in Germany

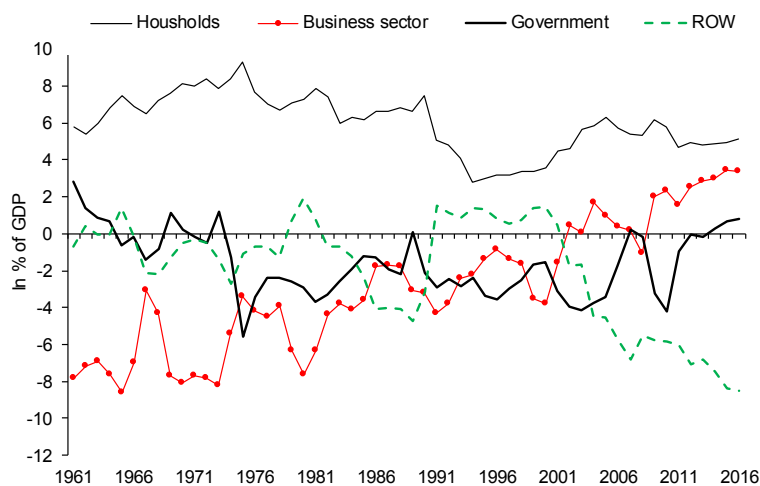


Source: Eurostat, OECD

From this perspective, high 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, not for lower wages (high/full employment in the 1960s was associated with wages rising faster than labour productivity whereas the opposite has been the case afterwards - figure 12).

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 roughly 100% since the late 1970s in spite of consolidation efforts (figure 14). This development casts doubt on the mainstream explanation that the government has control over its fiscal stance and must therefore be blamed for its rising indebtedness. Instead, one needs to take into account how the different sectors of the economy – households, business, government and the rest of the world (ROW) – behave under real and finance capitalistic framework conditions.<sup>14)</sup>

Figure 13: Financial balances in Germany



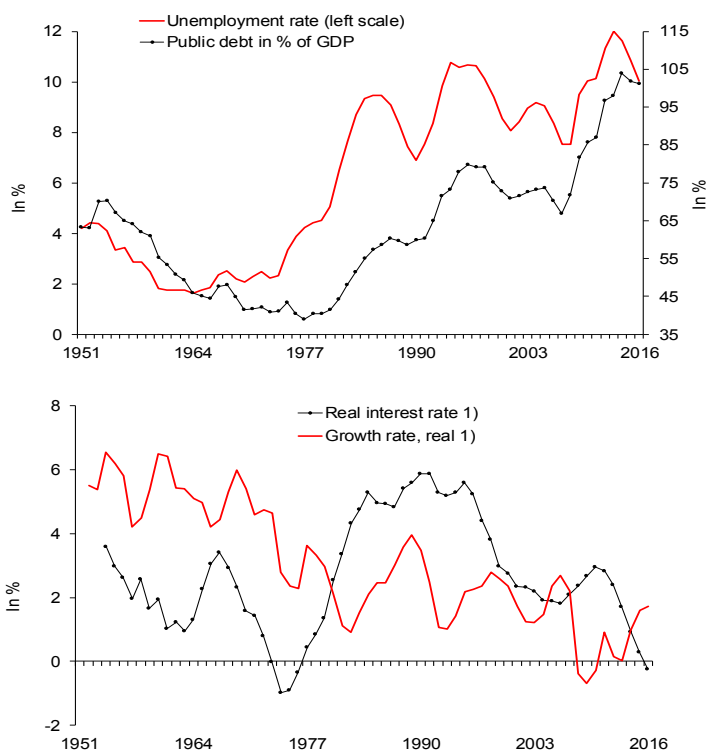
Source: Bundesbank

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 (figure 13) in order to finance the accumulation of real capital and, hence, the creation of jobs (figure 10). 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 the public debt declined relative to GDP (figure 14).

<sup>14)</sup> In the following we specify only non-financial business since the financial balance of the financial sector was close to zero most of the time.

Since the 1970s, the finance-capitalistic framework conditions induced non-financial business to reduce its deficit and to become a surplus sector in almost all industrial countries (like Germany - figure 13): Real investments were reduced in favour of financial investments, the stock of real assets has been declining relative to financial assets (figure 10), job creation and economic growth slowed down, unemployment rose so that even stability-oriented countries like Germany have been running budget deficits most of the time (figure 7).<sup>15)</sup> Given the positive interest-growth-differential, the public debt-to-GDP ratio has risen steadily (figure 14).

Figure 14: Unemployment, public debt and the interest-growth-differential in Western Europe



1) 3-years moving average

Source: OECD, Eurostat, WIFO

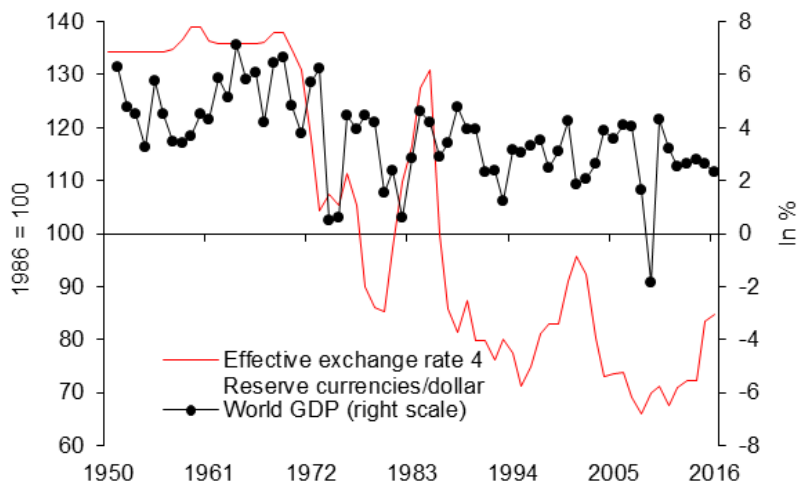
The difference between real and financial incentive conditions has shaped economic development not only within industrial countries but also at the global level. This holds in particular as regards the world currency (figure 15). Over the 1950s and 1960s, the dollar

<sup>15)</sup> Only in recent years did Germany achieve a balanced or even a surplus budget, however, at the expense of the rest of the world: The European Monetary Union enabled Germany to fully profit from its restrictive wage and fiscal policy since the appreciations vis-à-vis Germany's euro partner countries were no longer possible. The German contribution to the development of the "euro crisis" is documented in detail in *Schulmeister, 2018*, chapters 11 to 13.



remained stable vis-à-vis the other reserve currencies contributing to the (relative) stability of commodities prices and to stable growth of world production - it fluctuated just between 4% and 6% per year.

Figure 15: Dollar exchange rate and the global economic growth



Source: IMF, WIFO

Since then, also the wide fluctuations of the world currency increased uncertainty and dampened economic growth, in particular through destabilizing commodities prices and causing international debt crises.

## Roads to Prosperity

The transition from finance capitalism to real capitalism – the trough phase in the long cycle triggered by financial crises as in 1873, 1929 or 2008 - usually takes many depressive years since governance according to the old navigation map makes things only worse but a new map has not yet been developed. Such a transition phase calls for changes the direction of the course even without guidance by a new theory (like Roosevelt's New Deal).<sup>16)</sup>

The development in Europe since 2008 shows: The attempts to restore the neoliberal-finance-capitalistic order only deepen the crisis. Preventing a slide into a downward spiral after the outbreak of the next financial crisis calls for a coherent, empirically founded explanation of the long way into the crisis as basis of a concrete concept for a sustainable recovery (both were not available in 2008, hence, one could not make use of the "shock" of the elites).

<sup>16)</sup> The long cycle as sequence of real-capitalistic and finance-capitalistic regimes is discussed in *Schulmeister*, chapter 8.

Such a modernisation of the European Social Model is based on real-capitalistic framework conditions, improves the social and ecological sustainability of economic development and strengthens the political coherence of the European Union. Here, I summarize just two types of proposals, measures for repression of "finance alchemy" and for improving the environment as well as (temporarily) economic growth (for the overall concept see *Schulmeister*, chapter 19).

### *Repression of "finance alchemy"*

Fostering entrepreneurial activities in the real economy is the most important precondition for prosperity. It can only be achieved if "finance alchemy" is repressed and if exchange rates, commodities prices, interest rates and stock prices are stabilized.

### **The European Monetary Fund**

In a Monetary Union, interest rates on government bonds have to be stabilized at a common and sustainable level - otherwise speculators can play euro countries off against each other (the main reason for the euro crisis). The European Stability Mechanism (ESM) should therefore be transformed into the European Monetary Fund (EMF).

The EMF provides euro governments with financial means by selling Eurobonds in the capital markets. The interest rate is set at a level below the level of medium-term economic growth (in nominal terms). In addition, the EMF stabilizes the interest rate at the target level by intervening in the secondary market. If necessary, the EMF has full backing by the ECB ("quantitative easing"). Under these conditions, speculation on the bankruptcy of an EMU member state becomes useless.

The EMF helps to restore sound public finances in euro countries in close cooperation with the ECB, the European Commission and national governments. It 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 the EU.

### **Transition from continuous trading to electronic auctions**

Bull and bear markets are the result of the trending of asset prices, strengthened by the use of trading systems across different time scales. The most efficient means of breaking the feedback between technical speculation and (mini) trends consists of moving from continuous trading in microseconds to electronic auctions, e. g., every three hours (the same procedure is used every day for determining the opening price on an exchange).

For everybody who buys or sells stocks, bonds, foreign exchange or commodities futures for investing, trading or hedging purposes, it is sufficient when he/she can do so every three hours (to stick to the example). At the same time, the algo trading systems are cut off their "food", (high frequency) data.

In order to participate on auctions, one has to give buy/sell orders so that traders are forced to form expectations about the fundamental value of an asset. This is not the case in continuous trading: High frequency trading is done automatically by computers and a "traditional" trader will often buy (sell) an asset which he considers over(under)valued just because a short-term trend has taken off and his trading system produces buy (sell) signals.

### **General financial transactions tax**

Even though moving to electronic auctions would be most efficient in curbing short-term speculation, it is very improbable that such a move would take place in all countries with important financial markets. This will limit the stabilizing effect, e. g., if only the EU makes this step. It would, nevertheless be useful, if "finance alchemy" emigrates from this area. In order to prevent banks and corporations resident in the EU to engage in (very) short-term speculation elsewhere (e. g., in London), one should introduce a financial transactions tax based on the "residence principle" as proposed by the European Commission.

### *Improving the environment and fostering (temporarily) economic growth*

Many (very) great investment programs (in the spirit of the New Deal) would improve the environment over the long run, in particular by reducing CO<sub>2</sub> emissions, and would strengthen economic growth during the implementation phase ("green growth"). Examples of such projects are the thermic isolation of the whole stock of buildings in the EU or the construction of a (super-)high-speed railways net across Europe as alternative to air travel. However, the potential of a (temporary) "green growth" can only be fully utilized if the price of the most important polluter, crude oil and other fossil combustibles, rises steadily and significantly faster than the general price level – simply because the profits from investments in energy efficiency consists of the saved energy costs ("opportunity profits").

### **Fixing the long-term price path of crude oil in the EU**

The use of crude oil (and other fossil combustibles, not separately mentioned in the following) is the most important cause of climate change and, hence, the source of enormous social costs. To compensate for this market failure (the Coase theorem is irrelevant in this case), the price of crude oil should permanently rise stronger than the general price level. There is a second reason for that: Crude oil is an exhaustible resource (Hotelling rule). In reality, however, the wide fluctuations of crude oil prices (figures 2 and 5) render investment in energy saving technologies completely incalculable.

This could be fundamentally changed in the following way: The EU sets a stable, obligatory and, hence, reliable price path for all users of crude oil, valid within the EU jurisdiction for the next 20 years (or so). The annual (and constant) price increase is derived from studies which estimate to which extent CO<sub>2</sub> emissions must be reduced within the next 10, 20, 30 years to keep the rise of the global temperature below 2°C and how fast the price of fossil energy must rise to achieve the emission target (using always the estimates on the safe side).

Suppose, the estimates arrive at an necessary annual rise in the price of crude oil of 12% (by 10 percentage points higher than the target inflation in the EU) at a base value of 70\$ per barrel, then the "EU price" would rise within 10 years to 217 \$ and to 383 \$ within 15 years.

Such a stable and reliable price path would trigger a wave of investments in energy saving, from isolation of buildings to new forms of mobility: Business and households would increase their demand for alternative energies as well as for more energy-efficient goods, raising the profitability of the respective investments which becomes calculable at the same time - not only because fossil energy becomes more expensive but also (and even more) because there exists now certainty about the long-term development of (relative) energy prices.

The (un)certainly issue is crucial since the amortization periods of energy saving investments are particularly long (as yet, the wide fluctuations of energy hampered investments even if the current oil price is high because he could and probably will fall again).

The price path should be implemented by introducing a flexible tax which amounts to the difference between the world market price and the EU target price (emissions trading schemes or carbon taxes cannot bring about a stable and reliable price path for the end users of energy). The receipts from such a EU-wide tax would lie in the 3-digit-billion euro amount (partly distributed among member states, partly funding the EU and its projects).

Such a dynamic price scheme for fossil combustibles in the EU 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 EU as the second biggest oil consuming region (though not to its oil consumers).

There are many problems related to this proposals which I won't discuss here like taxing the "fossil energy content" of EU imports, the loss of price competitiveness of EU exports in third markets or mitigating the social impact of rising energy costs (see *Schulmeister*, p. 330ff).

### **Thermic renovation of the stock of buildings in the EU**

The energy requirement of (residential) buildings for heating and warming water can technically be reduced by almost 100% in most cases. Even if one would reach only the "low energy standard" one could save roughly 80% in energy and, hence, in CO<sub>2</sub> emissions. At the same time, however, the renovation rate per year is less than 1% in most EU countries.

This situation calls for initiating and implementing a mega-project: The thermic renovation of the overall stock of existing – primarily residential - buildings in all EU countries over a period of roughly 15 years (as far as technically possible). This project should be promoted at all levels – from the EU down to the communities – by linking together business, banking, public administration, house owner and residents in "concerted actions."

The project needs to be promoted through campaigns in TV, print and social media ("Europe improves private living conditions and the environment"), documentation of best practices (in particular with respect to the ecological quality of the insulation material), engagement of

local banks taking over the management of single projects (“one-stop-shop”) in exchange for secure investment/credit opportunities in real capital, etc.

The macroeconomic effects of this project would be very substantial for several reasons: It consists of millions of single projects and, hence, stimulates the economy on a large-area basis, i. e., EU-wide. The production is labour-intensive and requires in particular not “too” highly qualified workers. For both reasons, the multiplier effects will be above average. Very rough estimates indicate that the annual GDP growth in the EU could be raised by almost 3 percentage points through such a “mega project” (*Schulmeister, 2018, p. 334*).

### **Trans-European net of high-speed railways**

If the price of fossil energy would steadily increase in the EU, using airplanes as means of transport would become particularly more expensive. At the same time, air traffic accounts for a substantial part of CO<sub>2</sub> emissions. To steadily reduce them, one needs alternatives for transportation, in particular over distances below 1000 km, a net of high-speed railways.

Nowadays, high-speed trains already reach more than 500km/h in tests. It is therefore not unrealistic that it might take roughly 3 hours to get by train from Berlin to Paris. If, at the same time, an air ticket for the same trip cost several hundred euros, more and more people would prefer the train (as is already the case today for the trip from Milan to Rome as the train takes less than 4 hours).

Constructing such a railway net will take several decades, it would create a great number of jobs and it would “move” the countries at the EU periphery like Romania, Bulgaria, the Baltic states and also – in the future – the Western Balkans closer to the centre, not only as regards travel distance, but also the social-psychological and political distance.

Other components of the modernisation concept of the European Social Model concern the renovation of the welfare state, in particular as regards education, psycho-social care, housing, pensions, services in the public interest (water, electricity, public transportation, etc.) and social security (*Schulmeister, 2018, p. 337ff*). Problems in these areas have grown tremendously, especially in the Southern and Eastern EU member countries, at the same time, they cannot be mitigated by “the market”.

A special problem concerns the “colonisation” of Europe through its dependency in information technology, more specifically in operating systems (Microsoft, Apple, Google), internet platforms (Facebook, Twitter, Instagram, Uber, Airbnb, etc.) and software packages like Microsoft Office. Being network economies, there is an almost “natural” trend towards monopolisation (“the winner takes it all”). Over the long run, the “war for (technological) independence” can only be waged and won through political leadership (the foundation of Airbus almost 50 years ago might serve as a model).

Final remark: The pre-condition for discussing a fundamental modernisation of the European Social Model necessitates an emancipation of the elites from neoliberal “market religiosity”. The upcoming financial crisis might help but will not be sufficient.

## References

- Barro, Robert, "Are Government Bonds Net Wealth?", *Journal of Political Economy*, 82 (6), 1974, 1095–1117.1974.
- Becker, Gary S., *The Economic Approach to Human Behavior*, Chicago: University of Chicago Press, 1976.
- Buchanan, James, Tullock, Gordon, *The Calculus of Consent – Logical Foundations of Constitutional Democracy*. Ann Arbor, 1962.
- Burgin, Angus, *The Great Persuasion: Reinventing Free Markets since the Depression*, Harvard University Press, 2012.
- Coase, Ronald, "The Problem of Social Cost", *Journal of Law and Economics*. Vol. 3 (1), 1960, S. 1–44.
- Cole, H. C., Ohanian, L. E., 2004. "New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis," *Journal of Political Economy*, 112(4), 2004.
- Friedman, Milton, "The Case for Flexible Exchange Rates" in *Essays in Positive Economics*, Chicago University Press, 1953.
- Friedman, Milton, *The Role of Monetary Policy*, *American Economic Review*, 58(1), 1968.
- Friedman, Milton, Schwartz, Anna J., *A Monetary History of the United States 1867-1960*, Princeton University Press, 1963.
- Hayek, Friedrich A., *The Constitution of Liberty*, University of Chicago Press, 1960.
- Jones, Daniel Stedman, *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics*. Princeton University Press, 2012.
- Koo, Richard, *The Holy Grail of Macroeconomics: Lessons from Japans Great Recession*, John Wiley & Sons, New York, 2009.
- Kalecki, Michal, „Political Aspects of Full Employment“ in *Collected Works of Michal Kalecki, Volume I*, Clarendon Press, Oxford, 1990.
- Keen, Steve, *Debunking Economics*, Zed Books, London – New York, 2011.
- Kydland, Finn E., Prescott, Edward C., "Time to Build and Aggregate Fluctuations". *Econometrica* 50 (6), 1982.
- Lucas, Robert E., "Expectations and the Neutrality of Money". *Journal of Economic Theory* 4 (2), 1972.
- Lucas, Robert, "Econometric Policy Evaluation: A Critique", in Brunner, K.; Meltzer, A. (eds.), *The Phillips Curve and Labor Markets*. Carnegie-Rochester Conference Series on Public Policy 1, American Elsevier, 1976, 19–46
- Phillips, Alban W., *The Relation Between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861–1957*, *Economica*, 25(100), 1958, 283–299.
- Prescott, Edward C., "Some Observations on the Great Depression", *Federal Reserve Bank of Minneapolis Quarterly Review*, 23 (1), Winter 1999.
- Samuelson, Paul A., Solow, Robert, „Analytical Aspects of Anti-Inflation Policy“, *American Economic Review, Papers and Proceedings*, Vol. 50, 1960, 177-194.
- Schulmeister, Stephan, „Globalization without global money: the double role of the dollar as national currency and as world currency“, *Journal of Post Keynesian Economics*, 2000, 22(3), 365-395.
- Schulmeister, Stephan, "On the manic-depressive fluctuations of speculative prices" in Hein, Ekkhard, Niechoj, Torsten, Spahn, Peter, Truger, Achim (eds.), *Finance-led Capitalism*, Metropolis-Verlag, Marburg, 2008.
- Schulmeister, Stephan, *Der Weg zur Prosperität*, ecowin, Salzburg, 2018.
- Stigler, George, "The theory of economic regulation", *Bell Journal of Economics*, 2 (1), 1971, 3-21.
- Walpen, Bernhard, *Die offenen Feinde und ihre Gesellschaft: Eine hegemonietheoretische Studie zur Mont Pèlerin Society*, VSA Verlag, 2004.