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Political Rebound Effects as Stumbling Blocks for Socio-ecological Transition

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Abstract

While the extent to which management and owner interests in firms can diverge has been extensively researched, the discrepancy between the preferences of citizens and governmental response to these (or lack thereof) remains under-researched. It may lead to disruptive changes and the unexpected rise of populism that calls for new elites or a return to old values or both. The article begins with the fact that a clear majority of citizens dislike increasing inequality and would like governments to prevent climate catastrophes, ranging from droughts to global warming. Nevertheless, neither green parties nor parties that favour redistribution have been successful in most countries. Documentary policy analysis yields to explanations for this, which are probably interconnected: "political rebound effects" and the fear that inefficient governments might not solve the core problems while increasing the already high tax burden. These hypotheses can hopefully help focus the assessment of uprising populist movements and provide the basis for more empirical research. OLD to be deleted: While it is intensively researched how far interests between management and owners in firms can diverge, the discussion why differences between the preferences of citizens will not be implemented by governments even in the very long run is under researched. These differences then may lead to disruptive changes and the unexpected success of populism calling for new elites or to the return to old values or both. The article starts from the fact that a clear majority of citizens dislike rising inequality and would like governments to prevent climate catastrophes from droughts to global warming. Nevertheless neither green parties nor parties favouring redistribution are successful in most countries. Documentary policy analysis leads to two explanations which will probably work together: first by "political rebound effects" and secondly by the fear that inefficient governments may not solve the prime problems but only increase the already high tax burden. These hypotheses hopefully help to focus the assessment of uprising populist movements and are open to more empirical research.

Keywords

Policy Inefficiency, Governance Problems, Rebound Effects, Social Constructivism, Populism

1. Introduction and Outline

Many people share the belief that the current socio economic system – albeit better than any alternatives applied in reality so far – has serious flaws. While people want less inequality (and poverty) and more stability (from climate to financial system), inequality is persistent and chances to limit global warming are fading away. Even if progress is made in these fields [1] the economic policy is going into the direction warranted at slow pace and with persistent backlashes. We underpin the necessity for change by recalling a policy agenda presented by Kenneth Arrow [2] calling for more equality, less pollution and more financial stability or by referring to the WWW for Europe project [3]. Then we ask why citizens in the US but to some extent also in Europe seem consistently to vote against their own interests e.g. in questions of income equality. One reason for this may be that more equality is often connected with a bigger government.

1 COP 21, 2015

2 Arrow 2004

3 Aiginger 2016

The public sector however is costly and outrageous inefficient, so that the benefits of more equality are feared to be over-compensated by higher taxes. As alternative rationale for the inability of the society to pursue an agenda socially and individually beneficial we propose "political rebound effects". Rebound effects are known in ecological science; if policy goes into one direction for some times, the benefits of the policy decreases and the costs increase making the pursuit of the goal less attractive. This rebound is exacerbated by lobbying effects for the status quo and inefficiency of governments. We complement the paper with some success lines (e.g. that absolute poverty is decreasing and ecological awareness is rising – albeit slowly and erratically). Finally we report about a European research project addressing the necessity of transition to a new social and ecological model which at the same time would increase European dynamics. We analyse the feasibility of this change and report stumbling blocks for this welfare increasing strategy, which also would be an alternative to the policy to be expected by the new US President Donald Trump.

2. The Knowledge About the Necessity for Change

To demonstrate the knowledge of the necessity for radical change we recall three points of a policy agenda Kenneth Arrow presented in 2002 on a conference at Stanford University to an audience of economists from the US, Europe and Japan, as well as experts from OECD, US government and the European commission.

Three main points he addressed were increasing dispersion of income (specifically concentration at the top) global warming (with a critique of the absence of a national wide policy in the US and some applause for grass route movements in California and New England), deregulation of financial markets (with a critique of the repeal of the Glass-Steagall Act and the warning that misreporting and manipulation will be revealed only if the companies failed as in the Great Depression in the thirties of the last century).

More than a decade after Kenneth Arrow emphasized these points we have to register that (i) the dispersion of income has further increased within most countries, (ii) greenhouse emissions are rising to an extent that it has become very improbable to limit global warming to two degrees, and (iii) there was the "Great Recession" of 2008 exactly triggered by an instable financial system, including manipulation and misreporting.

The question arises why economic policy despite of warnings by one of the best known economist did not pursue a policy limiting inequality, curbing pollution and stabilizing the financial system. Out of the many answers possible I want to concentrate on two hypotheses, where the first has been raised already by Arrow and the second reflects my own policy analysis (as an economist in favour of a pro active policy approach but deeply disappointed by the inefficiency of government interventions).

Hypothesis 1 originates indirectly from *Kenneth Arrow*. It stated that in democracies it is possible that people - repeating and even in the long run - vote against their own interests[4]. Even if a rather large majority of an electorate wants less dispersion of income, no political party may pursue this as its defining goals; or the party explicitly or implicitly favouring redistribution, may lose elections. Furthermore even if the majority wants to curb emissions, parties in favour of stricter policies may not exist or not win; and even if the majority wants a stable financial system this may be no policy issue or the party preventing regulation may succeed.

Hypothesis 2 is to some degree complementary. Governments in principle are commissioned by voters to support long term goals, but are inefficient to support these goals in a consistent policy. Governments fail to reach their own goals (or those commissioned by the voters. This happens *despite a share of government* in economic activity of 50% in Europe and 40% in the US. We present seven examples of government inefficiencies which may lead to a "political rebound effect".

The two hypotheses – albeit coming from very different angles of the socioeconomic research – may work together. People do not vote in their own interest since they know about long-run government inefficiency. They may be afraid that inefficient government interventions would raise taxes so strongly that the positive net gain of redistribution or ecological sustainability is overcompensated by a larger tax burden.

3. Conundrum 1: The Majority Votes Against Own Economic Interests

"...Tax policy could mitigate the trend towards inequality. Nevertheless this topic is not in the political agenda... The pressure to repeal the estate tax is especially indicative... the estate tax should be one of the most popular taxes imaginable. It touches only two percent of the population...."[5].

To put this into another perspective: How can it happen that the median income in the US has been declining since the seventies while GDP per capita has more than doubled (+112%, real terms); yet there is no revolt in the direction of a party calling for limits of income dispersion. On the contrary tax reductions for rich people were enacted by US government, and the Tea Party increasingly influences the political agenda. And the poverty rate has further increased in the US (from 12% to 15%), since Kenneth Arrow presented his agenda. The same holds for the Gini measure of

4 Opinion survey show that even in the US the majority of the population wants a lower dispersion of income.

5 Kenneth Arrow (2004, p. 208), Kenneth Arrow (2004, p. 208). He adds another example: "The fact that the interests of a very small group can get a majority even if it is at the costs of a broad majority has a parallel in agriculture. The political power of farmers is inversely proportional to the relative size of the population, as far as I can see, a rather interesting generalization for which I know no explanation".

inequality. And it is well known that the lion's share of GDP growth in the last decade has been pocketed by the top 1% of incomes [6].

Most economists now believe, that an unequal distribution reduces growth – so that equity and efficiency minded agents should join forces. We may wonder about the underlying cause why inequality increased (whether globalization or technology trends are the cause of increasing income dispersion), but the evidence for increasing inequality and the explosion of top incomes is now beyond doubt.[7] We may discuss to which extent increasing income spreads are responsible for the financial crisis [8]. But still no country has the agenda of shifting distribution back to the levels of the seventies (which by the way was a period of much higher growth). Political scientists are called to explain why some severe and aggravating problems are not reflected in the political agenda. [9]

4. Conundrum 2: Inefficiency of Government Despite of Unprecedented Size

Governments are surprisingly unable to reach long run goals despite a share in economic activity of 50% in GDP in most European countries and a share of 40% in the US.

Inefficiency 1: Climate change is ignored, fossil energies subsidized

It is known that climate change will increase the global temperature up to 5 degrees by the end of the century (with very high probability), and if this happened it would be irreversible[10].

Nevertheless US economic policy and the majority of the business community welcome each new source of fossil energy (be it shale gas or oil resources becoming accessible due to deep water exploitation or the arctic ice melting). Reinventing manufacturing may be a sensible agenda for the US, but focussing on energy efficiency, renewables and skill-intensive industries would increase incomes faster in the long run than enjoying a cheap domestic energy source (involving new environmental risks) and increasing the surplus in energy-intensive industries. Higher energy prices do not lower overall competitiveness, but only shift industry structure towards energy intensive industries[11]. Coal is the energy source the use of which has increased fastest since 2000 and subsidies for fossil energy are still much higher than subsidies for renewables. [12] But the subsidies for alternative energy – albeit lower in absolute size - and the costs for the "Energiewende" are increasingly criticised and will be curtailed not least under guidance of the European Commission. And the new US president promises to make US manufacturing competitive again by cheap fossil energy, giving the permission to build two new oil pipelines.

Inefficiency 2: Impotency to regulate/stabilize the financial sector

Instability stemming from the financial system has been documented for hundreds of years[13]. The Great Depression had inspired regulation and the separation of investment banking from commercial banking. In the last twenty years we experienced the repeal of the separation of retail vs investment banking, the creation of shadow banking and hedge funds. High profile mathematicians calculated dynamic risk of investment papers with static risk models, neglecting cumulative risks. But cumulative risk and imperfect knowledge are exactly two of the reasons why banks have to be regulated.

After the Financial Crisis 2009 regulation has returned: rules for higher own assets (in general and for systemically important banks) were established, more transparency and firewalls requested. Europe is about to establish a Banking Union. But at the same time the concentration rate of the financial sector further increased. And the new rules are extremely complicated; Basel 3 is hundreds of pages long.

We do not need more detailed rules, but a few rules addressing the main problems. And we need rules binding all actors including "shadow banking" and offshores in tax shelters. We need strong penalties for all institutions and people who create new "weapons of mass destruction" or help with tax evasion or money laundering.

A financial transaction tax would be an unbureaucratic instrument to reduce (very) short-run transactions which have multiplied over the last decades. There is fierce opposition to every attempt to levy a miniscule tax on papers traded hundreds of times per day; taxing millisecond transactions is declared to destroy the repro market, to balloon interest rates on the money market. The short-run transactions furthermore distort competition insofar as agents with high-speed access benefit from any new information, while firms and individuals can buy or sell only after the price has changed.

Inefficiency 3: Inability to set up a tax system that bosses pay more than secretaries

Tax systems have become more and more complicated. In many countries top income earners, with the help of legal loopholes or illegal tricks, pay a lower effective tax rate today than their secretaries *(in contrast to the "Buffett Rule")*. And multinational firms successfully shift profits and costs from country to country and finally to offshores or tax

6 Atkinson – Piketty – Saez, 2011

7 Even the OECD changed its position after Angel Gurria became Secretary General after long years of US dominance. "Divided as we stand" is now the analytical message. Critique of rising inequality (within countries) is less replicated in the policy recommendation, but at least reported in the analytical part beyond doubt.

8 Acemoglu, 2011; Aiginger – Guger, 2013; Palley, 2011; Stockhammer, 2011

9 One strand of literature blames the voting system (lower representation of low income earners, franchising; lobbying). Economists explain lower preference for redistribution in the US with higher upward mobility (low income earners expect to have higher incomes soon (*Alesina - Perotti*, 1996).

10 *Stern*, 2007; *IPPC*, 2013

11 Zachmann, Cipollone (2013)

12 According to reports by the "Süddeutsche Zeitung" Commissioner Günther Oettinger (European Commissioner for digital economy & society) ordered the deletion of figures that fossil energy plus atomic energy receive large subsidies from the most recent report (Meltwater 15.10.2013).

13 *Minsky*, 1973

shelters and pay lower taxes than SME's.[14]

Summarising, the tax burden of 40% to 50% is currently distributed by a very complex system in a way that *medium-income earners pay higher taxes than top incomes, and small and medium-sized firms more than multinationals firms.*

Inefficiency 4: Inability to eliminate gender gaps and other forms of discrimination

We know that women have on average the same abilities as men (or are even better in steering complex organizations or culturally diverse work forces). They acquire in many industrialized countries more formal skills than men, but their capabilities are underused in management and economic policy.[15]

The inheritance of differences in incomes and in education persists. The life expectancy depends on education, on the income of parents and the birth place. These are inefficiencies from the economic point of view and inhuman from the perspective of society.

Summarising *governments are not only inefficient in limiting income differences, but also at eliminating gender differences and inequality of opportunities.*

Inefficiency 5: Outrageous privileges of clubs with high prestige and historical claims

The military sector is large in the US. Different types of security services have been multiplied since September 11, watching emails and personal behaviour of citizens.

Europe forfeits the cost advantages of merging 28 defence systems, which spend the same amount for military purposes a Russia and China together. Possible cost cuts in these systems are estimated for Europe to be lie between 30 bn € or 120 bn €. Together with similar cuts in the agricultural subsidies this is the amount Europe would need to fight youth unemployment (a guarantee for employment or training) and at the same time to catch up with the US in expenditures for R&D.

If asylum seeking people die between Syria and Italy, the Italian government calls for the European Commission to pay the extra costs of supervising the Mediterranean Sea instead of asking (i) how and why Italy spends 1.3% of GDP on its military forces (ii) what Europe has done to improve economic conditions in its neighbouring countries as to prevent political unrest, ecological disasters and refugee streams or (iii) whether there could be an industrial park in Sicily or in peaceful sub regions in North Africa connecting European technology with African labour force (like the industrial park between North and South Korea or industrial zones like those jump which have jump started China's return to an economic power house).

Greece and Portugal "enjoy" the highest military expenditures. Germany and France made it a condition of their approval for bailing out that Greece did not reduce the imports of weapons.[16] Ship-owners are exempt from taxation from Greece to Denmark. Churches successfully defend tax *privileges, they own banks and industrial conglomerates* (e.g. in Cyprus) supporting money laundering and tax evasions.

Inefficiency 6: Inability to shape technology in the direction of societal need

Large car producers are unable or unwilling to produce a zero emission car for ordinary people and complain that electric cars would need frequently recharging. A newcomer (Tesla) is able to supply an electric car for the luxury class, which has 400 PS and need to be reloaded after 500 km only. The incumbent car firms lobby for the postponement of deadlines for emission reduction and use illegal devices to forge test results often with implicit knowledge of the regulation authority claiming that emission free technologies are not available or extremely expensive.

Inefficiency 7: Inability to foster education, innovation and healthy life styles

Education is mainly a public good predominantly supplied in public schools. Nevertheless in many countries a quarter of young people cannot read adequately. Schools neither teach healthy life styles nor entrepreneurship. Health systems are better able to repair hips than prevent health problems pro actively. Life expectancy is much higher for higher educated people and education depends on the income of parents.

Let us stop with the holy number of seven inefficiencies and present my conclusion: everything the Chicago School predicted about the self correcting forces of markets was wrong; unfortunately everything they said about government inefficiency and hostage taken regulators was correct.

5. Why Big Government Is That Inefficient: Political Rebound Effects

If government commands nearly half of the resources in industrialized countries and taxes amount to 40% or 50% of incomes, it should be able to fulfil the most pressing needs expressed by the electorate. While there is a large literature about government inefficiency, I will in this section only refer the dynamic aspect of inefficiency – the inability to pursue a goal consistently over a long time. I concentrate on a phenomenon which I call – with some analogy to a similar problem in ecological economics - political rebound effects.

In ecological economics rebound effects denote the following phenomenon: to reduce emissions of the energy

14 Simple rules of transparency would stop high income earners making use of the most frivolous tax evasion schemes. Transparency is part of the game in Sweden, a high tax country in which everybody pays taxes, and would be ashamed and castigated if not. Morale standards, based on a protestant ethic, empowered by strict rules and above all transparency seem to make the difference. "Good institutions" or trust are the terms used in growth theory.

15 Specifically in countries in Europe which have the largest problems, Greece, Spain, Portugal, Cyprus, France, Italy: women are very rarely in political and management positions (*Aiginger*, 2013). Nobody cares about using this resource, which would stimulate growth and reduce budget deficits.

16 Greece and Portugal "enjoy" the highest military expenditures. Germany and France made it a condition of their approval for cheap credits to Greece that Greece did not reduce the imports of German weapons. The European parliament recently recommended increasing defence efforts instead of suggesting exploiting the fruits of cooperation between 28 former national defence systems (European parliament being usually the institution more sensitive to public opinion as compared to the Commission or Council).

sectors, government induces a programme to boost energy efficiency. Increasing energy efficiency however makes energy-intensive goods cheaper; therefore the demand for energy-intensive goods increases (also driven by higher incomes). This "rebound effect" neutralises the positive effect of higher energy efficiency. This argument is often used not to start with an ambitious green policy at all.[17]

Political rebound effects

Any success of a specific government policy – like increasing the supply of renewable energy – leads to reactions of the providers of the old technologies, along two lines: an incremental improvement of the old technology plus lobbying against the new one. Since new technologies have high starting costs, low budgets for marketing and lobbying, the old technology bounces back for a period long enough to destroy the momentum for renewable.

Forces driving rebound effects are the following:

Lock in position: *Geels* [18] mentions three types: economic lock in positions (sunk investment in competence, factories, infrastructure), social lock in positions (cognitive routines, life styles, alignment between social groups) and political lock in positions (vested interests, existing regulations and incentive structure). The vested interests groups negatively affected by a reform, may be teachers, medical doctors, incumbent monopolies, automobile clubs or civil servants afraid to lose jobs. They all mobilize against the reforms which have set-up costs and no lobbies.

Hostage taken regulators and advisors: Government needs advisors, since most reform issues are complex and need intrinsic knowledge. These very advisors may come from vested interest groups, or they have previously worked in firms to be regulated and later expect to return. Economic ministers may have (past or future) business relations with the financial system, energy ministers to oil companies.

At the start of a reform process those projects are done which are easy to implement and which have high rewards. After these are done costs increase and benefits decrease.

Firms using the old technology fight back by increasing the productivity e.g. of gasoline-driven cars. They are interested that their investment and knowledge is used as long as possible.

In sum all these effects lead to the danger that the new technology or the change demanded by voters will run into difficulties, economically and politically. Stressing the political side we would like to call the phenomenon "political rebound effects", in technology oriented literature it is called "valley of death". The new technology cannot reduce costs quickly enough, while the old technology makes quick productivity gains by incremental innovations, lobbying is intensified and regulatory capture takes place.

Political rebound effects for environmental issues are well described in literature and to be seen in the international climate policy, for the German "Energiewende" and for a green industrial policy. Announcements by the new US President to eliminate environmental regulations and to permit new oil pipelines are the most recent examples.

Pessimism about net gains

As far as the quest for lower dispersion of income is concerned, political support is highest if a large segment of the population suffers absolute poverty (not being able to fulfil basic needs like food, housing). If absolute poverty is reduced, the argument gains that differences in wages reflect efforts, skills and that incomes can be raised by individual strategies. The group which has to pay for redistributive policies feels the increased tax burden and starts to lobby against redistribution[19]. They have also the power to boost their incomes by increasing working time, and prices (if they are entrepreneurs). Firms may shift parts of production abroad or looking for new workers not included in redistributive policy. Voters seeing that redistributive efforts do not work, but increase tax burden of others ("the middle class") are disappointed and voting behaviour will be shaped by other issues.

Government inefficiency and not voting for its own long-run interests is therefore related. People may not vote in their own interest because they do not believe that this will raise their net incomes (welfare) since governments are inefficient or taken as hostage by vested interests. Government may intend to reduce taxes on low incomes at the start, but during the process of implementing a tax reform which reduces dispersion, vested interest will start to counteract. Tax reductions for low income initially intended to be financed by cutting government expenditures and red tape are finally paid by higher taxes e.g. on consumption.

Finally the voters originally in favour of reducing taxes for low incomes correctly expect that the effect of lower taxes on their net income is smaller than the effect of larger government expenditures plus its negative impact on jobs. Voters with interest in lower taxes for low incomes then may split themselves between left-wing parties favouring redistribution at any cost, a right-wing populist party with a xenophobic agenda or even abstain from voting. [20]

Summarising, whenever a policy starts to work in a specific direction (lower income dispersion, more sustainability, etc.), agents interested in the status quo will innovate a little bit, but above all use their large cash reserves

17 The rebound effect could be prevented if the taxes on energy are raised continuously so that efficiency gains are not reflected in lower prices but in lower taxes e.g. labour. But this strategy is not followed.

18 Geels 2014

19 An alternative to finance redistributive reforms would be to cut government expenditures. Even if intended, lobbying effects often prevent such reduction of government expenditures, so that finally redistributive efforts are paid by tax hikes.

20 Two more arguments can be made why people do not vote for redistribution despite of the survey evidence that they favour lower income dispersion (as they do even in the US). The first is by *Alesina - Perotti* (1996) who argues that low-income voters in the US do not favour redistribution since they expect to move up the hierarchy soon. I do not really believe this argument, and new evidence shows that upward mobility is also rather low in the US. The second argument is that the party favouring redistribution is usually also the party favouring big government (and opposing to efficient public management or streamlining public expenditures). Then the net gain of a redistribution policy may be zero or negative (income gain by transfers is compensated by a higher tax rate e.g. higher value added tax - the most common tax to finance redistribution or large public expenditures).

or political networks to multiply lobbying efforts. The resistance to reforms increases and easy first round benefits may at that time be reaped. If lock in positions have not been removed, and cost of a new technology or organisational reform do not decrease quickly the impetus from reforms will decline. Political rebound effects including government inefficiency have to be taken into account in designing reforms.[21]

6. Progress Achieved and Upcoming Rebound Effects

In this section we first indicate fields of economic policy where some remarkable progress had been achieved over the past one or two decades. Then we mention areas where the situation is not improving or political rebound effects are very likely or even visible.

6.1. How Economics Changed Life for the Better

There is definitely some progress in achieving societal goals and where economic policy and knowledge of economists have helped to increase welfare over time.

Progress 1: Learning form the Great Depression

Economic policy reacted much better to the Financial Crisis than in the Great Depression: it implemented a countercyclical monetary and fiscal policy. Central Banks used unconventional measures (like qualitative easing) if interest rates were near zero. There was international coordination, governments forfeited blunt protectionism, and prevented the bankruptcy of systemic banks (including Eastern Europe).

The combined use of these policies plus the stability of emerging economies prevented the financial crisis from developing into a crisis of the extent of the Great Depression [22]. On the negative side we have to mention that the reaction of public policy was not structural and future oriented (e.g. car scrapping bonuses were offered without ecological spin), and that policy coordination eroded quickly, as recovery had set in.

Progress 2: Reduction of (absolute) poverty

We learned that the opening of markets and globalization – and also a worldwide financial system – can boost economic growth and reduce absolute poverty (measured by incomes above some fixed benchmark in constant dollars). The cumulative growth of the world economy since 2000 is larger than 50% and absolute poverty decreased worldwide: The UN development goals of halving absolute poverty and reducing hunger have been reached five years before the deadline (this could neither be prevented by the Financial Crises nor by surging food prices).

We also learned that globalisation needed a complementary domestic policy (education policy, may be also industrial policy) and that inequality or relative poverty is more difficult to tackle, but let us look at the bright side of life for a moment.

Progress 3: Lower use of military force, more international coordination

Military conflicts have decreased and remain on a more local dimension today[23]. with big powers often cooperating to restrict their geographical dimension and preventing them to develop into worldwide conflicts. We realise that providing basic economic needs reduces the potential of political crises. High unemployment and inequality on the other side encourages conflicts and autocratic governments then tend to use military conflicts and external threats to stabilize their regimes. [24]

Progress 4: Life expectancy has increased dramatically

People everywhere can expect today to live ten years longer than their parents; our grandkids will have life expectancy at birth of 100 years in rich countries (with differences across countries and dependant on parental income and education).

Progress 5: Cracking down of tax evasions

The OECD has started to promote the transparency of financial accounts and national governments realize more or less reluctantly that transparency is a welfare increasing force. International critique on profit shifting of multinationals is rising, “country to country reporting” of profits and activities may stop this. Some governments (e.g. UK), however, are deliberating between pressing for international cooperation oe defending their own tax shelters.

Progress 6: Green sprouts in China

China has started an ambitious program to combat smog in the cities inter alia by starting emission trading in seven large cities. It will take the lead in the low price segment for electric cars.[25] It is pondering to install a financial transaction tax on speculative trading (Financial Times, 27.1.2014) and regulates shadow banking.

Progress 7: Decoupling of physical resources from income

Material consumption is no longer rising in Europe. Measured in tons material consumption today is about equal to consumption in 1970 despite economic growth of 170%. Denmark can boast the best practice because it has absolutely reduced its CO_2 emissions by 15% despite doubling incomes and reducing fossil energy consumption by one quarter.

Progress 8: Changing modal split in large cities

Traffic is gradually shifting to public systems (trains, subway) or to biking in some urban areas; signs of a sharing economy (using consumption goods jointly instead of buying

21 Political science furthermore explains reform resistance by the fact that beneficiaries of new technologies are widely spread, losers of change are concentrated.

22 Aiginger 2011

23 Andrews 2016

24 This again is no linear process. Economic growth leading out of absolute poverty may lead to the demand for more political freedom, which is resisted by old elites, the military or religious groups destabilizing countries for some time (as currently in North Africa).

25 The high price segment is dominated by the US newcomer Tesla; it has recently gained the top position among cars sold in Norway (even if 90% are still cars powered by fossil energy). Europe will have efficient electric cars soon, hopefully not only from the top end produced by Tesla, nor from the low end produced only by China.

them individually at all costs) are beginning.

Progress 9: The next generation of buildings will be different

Standards for new buildings are rising; Denmark forbids the use of oil for heating in new houses and office buildings.

Progress 10: Unambitious European climate goals will be reached

The Kyoto goals of reducing CO_2 emission will probably be fulfilled by the EU as an aggregate (with some help of low growth in the wake of the financial crisis). EU-2020 goals are likely to be reached in the energy sector. It is planned to set a 40% target for energy reduction in 2030 relative to 1990; (albeit without setting a goal for renewables and for energy efficiency). And the increase in energy productivity is still lower than that in labour productivity.

6.2. Aggravating Problems and Signals for Rebounds

Some problems are aggravating and political rebound effects are visible.

Problem 1: Stagnant output in Europe with high unemployment

The economic output in Europe 2016 just surpassed the output in 2008 leading to zero growth for eight years. Unemployment increased to 10%, youth unemployment is 20%, and inequality is rising. In Southern Europe incomes have declined dramatically and youth unemployment is near 50%. Social unrest and the support for xenophobic or populist movements are mounting.

Problem 2: Energy supply and affordability defeat efficiency and renewables

Energy policy is reshifting priority (from supporting energy efficiency and increasing the share of renewable) to the old strategy of emphasising "affordable prices" and the "security of supply". Shale gas is exploited at high costs for environment. Subsidies for fossil energy are larger than for renewables.

The German "Energiewende" – to phase out nuclear energy – is under pressure: the very success of the strategy – namely the surprising high share of electricity provided by renewable energies – is turned into a problem insofar as the grids for transporting energy from north to south are insufficient. The input of coal has been increased since conventional power generation is needed in times the renewable sources do not provide enough energy. And coal has become cheaper than gas since the emission trading broke down (and is not repaired).[26] Other critiques bemoan the high costs for consumers stemming from the fact that energy-intensive industries are sheltered from increasing energy costs which are shifted to small firms and consumers.

Problem 3: Rebound effects in car industry in Germany and emission trading

The political rebound effect has started as can be seen from the lobbying effects of Germany in Brussels to extend deadlines for emissions and to prevent more stringent test procedures.

The European emission trading system broke down, and efforts to reform it are overdue. Australia's new government announced it would abolish taxing CO_2 emissions, the new US President declares climate change to be a Chinese invention.

Problem 4: Industrial policy preoccupied by "low road competitiveness" forgets R&D and skills

Industrial policy which had announced putting sustainability on the centre stage [27], is now shifting its attention to keeping up with the cheap production costs in the US (low wages, low energy costs). Low wages and low energy prices are feared to support the reindustrialising of the US while reducing European market shares. This fear of a loss of price competitiveness can be heard repeatedly in Europe and this despite a large trade deficit in the US and a surplus in the current account balance for Europe. True, energy costs are higher in Europe and have always been so; this was and in future has to be even more compensated for by higher energy efficiency, catching up the lag in R&D and improved education results instead lobbying for low energy prices. Empirical evidence shows that high energy prices increase energy efficiency and are no threat to competitiveness. They change the structure of industrial output not its size[28]. And countries with a larger sector of technology-driven goals are more competitive. In this sector Europe enjoys a surplus and the US a large and increasing deficit. Furthermore unit energy costs i.e. energy costs after taking energy efficiency into account are not much higher than in the US. [29]

7. Summary

The current socioeconomic system in the industrialised countries is considered by a majority of people and especially the young ones as not optimal. It is instable (recurrent crises, slow growth of median income with large and rising inequality), accompanied by high unemployment and disequilibria across countries, and global warming will continue. Accelerated by the fear that globalisation will lead to a loss of incomes and employment this is one source of upcoming populism and critique of capitalistic economies. Globalisation losers (low skilled blue collar workers in industrialized countries) join young people in their critical assessment towards the prevailing socio economic model and vote together with retired people "to give us our country back".

26 Coal is the energy source with the highest increase in production and consumption since 2000. Coal is shipped from the US to Europe, since the US supply of gas is increasing and no export facilities exist for gas.

27 European Commission 2010

28 Zachmann – Cipollone, 2013), European Commission, 2014

29 Results can be found on the homepage: http://www.foreurope.eu/. I will mention just two policy documents here: one on a new strategy for the European periphery (Aiginger 2013), and one calling for a new "high road" definition of competitiveness (Aiginger et al 2013)

We concentrate on three goals, namely reducing inequality, preventing global warming and spillovers from the financial sector to the real economy. All three goals are strongly supported by people according to opinion polls; none of them is reflected as central issue of the leading political parties, neither in the US nor in Europe. People do not vote for parties favouring redistribution even if the median income stagnates and all GDP growth is gained by the top 1% incomes. Voters do not flock to green parties even if the danger of an irreversible climate change becomes ever more evident. No party has a defining agenda how to reform and regulate the financial sector even if its potentially destabilising impact is known for long.

There are some arguments in political science why voters may not vote for their long-run interests, from (i) flaws in the electoral system to (ii) the effects of vested interest and money and (iii) preoccupation with short-term interests. We stressed one more: the striking inability of governments to pursue long-run goals consistently. Governments became bigger and bigger, now demanding 40% to 50% of the resources in industrialised countries (as reflected in expenditures shares in GDP), without effectively limiting income dispersion, the instability of the financial sector or climate change. People realise the inefficiency and vote for short-run issues because they do not believe governments will solve the long-run ones. The net gains of commissioning long-run goals could be even negative, if small gains in the objective warranted are overcompensated by larger losses due to raised taxes.

Seven striking inefficiencies of big government in industrialised countries are referred to (positive effects of government in developing countries are to be acknowledged in education, physical infrastructure, preventing absolute poverty and minimal insurance). Among the reasons for insufficiency we report lock-in phenomena (economic, political, regulatory), that policies first address the easy issues and become less active if the more difficult issues come up. Lobbying of vested interests increases and old technologies fight back by incremental improvements. So reforms and technologies have to cross a "valley of death", were reforms and innovation stop due to high costs and lobbying on the one hand and lower revenues and voter's support on the other hand. Costs have already occurred, government has become bigger, but political rebound effects prevent success.

Not all interventions have failed. Government has learned from experience in the Great Depression how to mitigate the Financial Crisis of 2007/2009; the millennium goals of halving absolute poverty and hunger has been achieved earlier than planned, military interventions between countries (not within) are decreasing and international worldwide coordination has increased. Tax evasion is seen more critical and some modest ecological goals have been reached. But on the other side the past decade and the current policy witnesses severe rebound effects. Energy policy is returning to low prices and "secure" supply of fossil energy as main goals of energy policy, and downgrades the priority on energy efficiency and renewables. Industrial policy looks for low energy prices though it is shown that this leads to a less favourable structure of the economy (high share of energy-intensive industries, trade deficits in technology-driven sector as in the US). High-wage countries with low resources should specialise in the technology driven sectors (thus going a high road strategy).

Political science demonstrate that transition to a new socioeconomic (or socio-technical) system only works if a multilevel approach is used, with innovation starting in niches (research labs, grass route movement in ecology). They then have to make inroads in technical and political regimes (firms, engineers, political parties, civil society) and a changing landscape (ideology, beliefs, preferences, media, macroeconomic goals; changing preferences and priorities). Top down and bottom up must work together to remove stumbling blocks. Lock in situations has to be addressed ex ante in reform designs.

The problems connected with inefficient governance and increasing differences between the goals of citizens and governments are highlighted by the current rise of populism in the US as well as in Europe. On the other side concepts how to combine higher economic dynamics with social inclusiveness and ecological sustainability have been developed in the WWWforEurope" project[30] by the think tanks of Bertelsmann, Bruegel and Notre Europe. New concepts are needed if the stumbling blocks for socioeconomic transition have to be removed in a proactive way forfeiting short run populist policies or bashing globalisation.

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