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THE MACROECONOMETRIC WORLD MODEL OF KLAUS BARTSCH ECONOMETRICS FOR SCENARIO ANALYSIS OF WORLDWIDE ECONOMIC INTERACTION

General Philosophy of modelling and short description of the model

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The article introduced the macroeconometric world model LAPROSIM WORLD. The basic version includes submodels for nine countries and world regions. Main task of the model is the assessment of the macroeconomic effects of changes in important economic variables and/or geopolitical action patterns on a global scale. The results of an exemplary simulation on the effects of sharp Western Alliance trade sanctions policy against Russia, performed with the scenario technique, were reported. Sharp trade sanctions may hurt Russia in a moderate way, but at the same time also Germany and the Rest of the European Union direct and indirect due to their relative close trade relations with Russia. The US as the initiator of the sanction policies don´t feel any significant effects, while Japan could have some benefit by the higher growth of China induced by the higher import demand from Russia, substituting US-alliance goods.

Keywords: *macroeconometric world model, simulation, scenario technique, trade sanctions, Russia, Western Alliance, China.*

1. The general purpose of macroeconometric modelling and possibilities for supporting people's cause — the Philosophy behind my Work

The general aim of macroecometric modelling is not at all new or exotic: Giving a realistic and reliable "moving picture" of economic dynamics in the real world. Although the Dutchman Jan Tinbergen [6] stood at the cradle of macroeconometric modelbuilding as we understand it today in the thirties of the last century, Karl Marx [3] outlined, in reception of the works of Francois Quesnay [5], very early not only the concept of a national account statistic, but also, in his reproduction schemes, a model of macroeconomic dynamics. Lack of available data and lack of computational power in the nineteenth century obviously hindered Marx and his contemporaries from filling that concept empirically.

On the base of a well specified structural macroeconometric model, tracking with sufficient reliability the "history" of economic development in the estimation period, forecasts can be done. But supporting business cycles prognosis is not the main purpose of macroeconometric modelling, as already Jan Tinbergen figured out. The main purpose is the ex ante assessment of different policy options, based on the understanding of the complex dynamics of the economy, captured in the structure of a good model.

This "general purpose" will in practice certainly not be pursued independent of the specific social respectively class interests: It is known that the policy options preferred by the rich in general are totally different and commonly antagonistic to the policy options preferred by the poor.

The typical macroeconomic model till today reflects "the rich man's view". It does so in generally not by describing all economic processes totally wrong, but puts an interest-led bias in the model structure mainly by

- omitting important variables; f. ex. neglecting the economic impact of public infrastructure investment in order to keep the importance of the state small and
- by inappropriate aggregation; f. ex. handling "disposable income" as the central determinant of private consumption as a whole and not disaggregated by functional and/or personal income categories for blurring the effects of distribution on aggregate demand;
- focussing the structural design of the model mainly on a class specific knowledge interests, as it happened for example in the IMF-type models applied on Latin America. "Focussing" means in this context: Which parts of the model, are modelled very accurate and disaggregated, "which submodels are modelled in a more basic way? The IMF-type models were structured mainly focussing on the question of how to

generate high net exports for financing debt payments to the rich OECD-countries. Many models in use, as the English multi-country model NIGEM, focus mainly on monetary and financial market variables, and less on variables concerning production, distribution, use and employment in the "real economy".

What is the main cause for this situation?

- Up to the eighties of the last century, even the computation of, from a retroperspective viewpoint, small and medium sized models could only be solved on mainframe computers. Both the computers, the software and the edited databases were extreme expensive and completely out of the reach of average earners or smaller organisations (The author made his first steps on a Siemens/Fuijutsu — Mainframe Middle of the eighties, using the "TROLL" — software). Tinbergen solved his, seen from today, small and simple pioneering macroeconometric models with the assistance of a lot of specialized manpower and simplifications. In general, from the resources needed alone, macroeconometric modelbuilding was an extremely expensive task, only feasible for very wealthy organisations, in tendency affiliated in one or another way to bourgeois class interest.
- The formal education needed for the setup of such models **and**, at the same time, the resources for applying the fruits of this education practically were, also due to the high amount of resources needed for computers and software alone for a long time monopolised at a small group of elitist Universities with big spenders, as for example Yale and the MIT in the USA. For that reason, mainly the children of the upper classes got in contact with this advanced methods of modelling and forecasting economic processes, transporting *in general* their class specific interest in the way they use the new instrument (I don't forget Engels).

So, not long ago, only materially resourceful people, with in general the political interest of materially resourceful people had access to the practical implementation of a concept of dynamic modelling of the economic process, of which curiously Marx was the most important forbearer. It was much more interesting for upper class offsprings doing research on policies, that lead to higher gains from financial markets than on policies improving the life conditions of the working class. Also career chances in general for economists improved by focussing especially on financial market issues, as banks and other financial institutions and their research departments are both important demanders and suppliers of macroeconometric output.

Today, the situation concerning the cost of resources has changed fundamentally: concerning the hardware and software resources needed, a 500 $ laptop, in combination with a 500 $ software, as, f. ex., the wide spread "EVIEWS" (they do not pay me for this), will do it compared with several hundred thousand or even million dollars thirty years ago. Today, most fundamental macroeconomic databases, also for Russia, are available on the internet for free. Even small organisations and also many individuals can afford the hard- and software resources needed for macroeconometric modelling or the use of macroeconometric models.

Meanwhile formal education in macroeconometric model building, combined with the resources to do "hands-on" training is, not at least due to the massive decrease of hard- and software cost, more wide spread also on "normal" universities than in the seventies or eighties, but very much less than it could be.

The reason for that is mainly ideological: Surely most of the models build up to the beginning of the eighties where not focussing on modelling all the issues in the specific interest of labour, but they stood, as dynamic "circulatory models", in the Keynesian tradition of system dynamic economics. This direction of bourgeois economics states, concerning the output and employment target, especially in economic crisis, a supremacy of macroeconomic politics on the level of the economy over a mere "invisible hand" approach, assuming "efficient markets" and the highest output resulting from the most deregulated markets (Neoliberal approach). As we know, the last approach got dominant in the politics of the most advanced capitalist countries, starting with Mrs. Thatcher in 1979 and followed by many others, also most of those parties under the label "social democrats" or "socialists", with the results we actually see. Models showing, that macrodynamic "behaviour" on the level of national economies does not simply reflect aggregate behaviour of microeconomic entities, especially enterprises individual firm, did not meet "the spirit of time" anymore. This was supported by academic neo-liberals, spearheaded by the "chicago-boy" and Nobel laureate Robert Lucas [2], lending all his authority to a "fundamental" critique on macroeconometric models and stated them in general as useless for policy advising. In the aftermath, a lot of academic teachers jumped upon the neo-liberal bandwagon: in the case of Germany, macroeconometric model building nearly disappeared as an academic discipline of economics taught and practised at universities, with very few exemptions. For that reason, working on that "obsolete" subject was no way for fostering an academic career. Because macroeconometric model building is very work-time demand-

ing on one hand and gave not much benefits for an academic career on the other hand, the "dumb force of circumstances" prevented a lot of bright heads of doing this work and left the subject to some professional forecasters in big banks and international institutions and a few "maniacs" fascinated by the matter and its possibilities.

Actually, if you hear of "macroeconometric models" today, very often so called Computable General Equilibrium Models (CGE´s) are meant. These are mostly not dynamic and with weak empirical foundation and are — as already the name signals — based on a narrow theoretical concept. Formally, this type of model resembles more to linear programming models used in business than the classical structural macroeconometric models (SMEs) [1]. In general: while the SME-modeller checks the empirical data at first and afterwards decides, which theoretical concept(s) fits best with the empirical facts, CGE-modellers build their models prejudiced by the belief in the truth of the general equilibrium theory in line with this theory, whatever the empirical facts might be.

Meanwhile, and especially since the worldwide financial crisis that erupted in October 2008, things have changed dramatically: the neoliberal paradigm as a ruling ideology in the main capitalist countries has lost most of its intellectual credibility in public discussion. This process manifests itself also in the crumbling of the traditional party systems in the EU and the election of an extreme "Outsider" in the US as president. The obstacles piled up by neoliberal ideology against the potential use of macroeconometric models as useful tools for the task of making the effects of policy alternatives transparent for and by the people, could be moved aside with the total collapse of the credibility of this ideology.

That makes way for the use of this instrument in a process of democratization of the economic debate by getting more forward-looking transparency concerning the consequences of alternative policy options.

Well specified models, focussed on labour interest, whether centered on national or international questions, connected with model building capacities for adapting such models to special questions of interest, allows the evaluation of concepts developed by the social movements themselves; but in principle also the evaluation of every policy program of the political adversary found in the political debate. Both policy options developed by the peoples organisations and that of their adversaries can be evaluated and asked for their consequences on the living conditions of the working class, both in the active age, the children or retired. As already mentioned, affiliated with and applied in democratic social movements, using the specialized scientists/economists related to this movements as "operators", this models may contribute to a more democratic and participative debate on the theoretical and practical outlines of macroeconomic policy conduct and the true intentions of proposed politics. For example especially upperclass-based parties all over the world regularly try to sell their special interests as the true interest of "all the people", as being in the interest of "freedom" and "human rights". They never state: "We want to rob you". Putting such programs on the test in simulating the proposed policy on an appropriate model can demonstrate, who really benefits and who looses in case of the realisation of a specific political concept. By this, democratic movements may take a qualified "look behind the curtain" and may assess, whether current or proposed economic policies have a democratic substance.

2. The Structural Macroeconometric Model "LAPROSIM WORLD" — a Brief Overview with a Simulation Example on Trade War against Russia

2.1. A Brief Description of the Model

In the last nearly thirty years, the models of the author were mainly built to deal with more or less complex tasks of German and EU economic policy and its alternatives. The different versions of LAPROSIM[1] GERMANY reach more than 1000 Equations, but need some exogenous input concerning the development of world trade.

While also the economic crisis starting in 2008/09 reawakened my interest in building an own world model, only the Ukraine crisis starting in 2014 gave the decisive impulse in starting this project. Its realized and possible feedback on world trade patterns, growth and employment, especially caused by the trade sanctions against Russia initiated by the US-led western alliance, brought to my mind, that complementary to my Germany/EU-centered models a global approach of modeling was needed for dealing adequately with the new challenges. The other important stimulus to start the work was the need to produce a tool able to support research on the global effects of European austerity policy.

In general, the main purpose of the model is the support of research on the effects of variant geopolitical developments from a macroeconomic perspective.

The philosophy and the basic macroeconomic structure of LAPROSIM WORLD (LPS-W) are

[1] LAPROSIM stands as an acronym for **La**ngfrist**pro**gnose- und **Sim**ulationsmodell (Long Term Forecast and Simulation Model).

similar to that of LAPROSIM GERMANY[1]. Both models are in its core models of a Keynesian type, handling the economy as a dynamic and open circulatory system. But the national/regional submodels of the world model are far higher aggregated than the national model for Germany, due to the difference in the main tasks of the models (Around 60 equations per country in LPS-W against 1000+ in the model for Germany).

Usually most of the empirical time series used in the estimation process of structural macroeconometric models are based on National Account data, in the case of a world model mainly on the national account database of the United Nations and the Penn World Tables, which provides standardized data for almost all countries in the world. In LPS-W, the national account database starts in general with the year 1970. This allows the estimation of stable long term relations.

The National Accounts provide mainly country information on:

- the level and the structure of production.
- The distribution of the income derived from production on different social groups.
- The use of the income on different aggregate purposes.

The vearly National Accounts are "snapshots" of a certain historical state.

In general structural macroeconometric models (SME Models), and also the LPS-W are basically simplified dynamized National Accounts. The development of the National Account data over time are explained by structural equations, estimated from the historical data and catching the main cause and effect relations in a well specified model.

The other most important source for the LPS-W database are the UNCTAD trade statistics. This database allowed to implement empirical trade matrices starting from 1995 for the nine countries and regions represented in the base model LPS_W 0.19[2]. The data allowed to estimate the imports of each of the nine entities from the other eight, so that the model was

[1] As an example of a simulation study centered on health economics, with a lot of methodological hints, performed with LAPROSIM GERMANY, you may take notice of Klaus Bartsch (2011): Eine Simulationsstudie zu den Entwicklungen der Beitragssätze zur gesetzlichen Kranken- und Pflegeversicherung (A Simulation Study on the Development of the Contribution Rates to the Public Health and Care Insurances), performed for the parliamentary grup „DIE LINKE" in German parliament. <https://www.linksfraktion.de/fileadmin/user_upload/Publikationen/Sonstiges/120301-bu-rgerversicherung-lang-gesamt.pdf>

[2] The Australian Public Affairs council prepared a static trade matrix for the G-20 Meeting in Brisbane 2010 for the 20 G-20 countries <dev.pac.org/content/G-20tradematrix>. The basic model of LPS_W produces dynamic trade matrices of this type for 9 countries and regions, depending on the scenario.

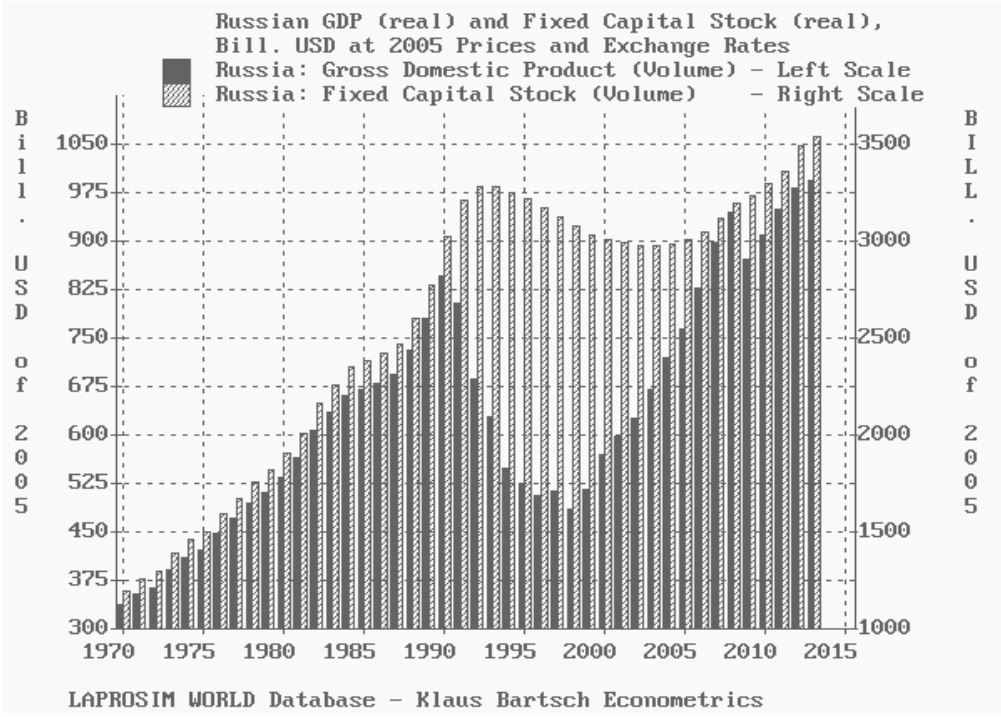

Fig. 1. An Example for Data from the LPS-W Database:
Real GDP and Fixed Capital Stock of the Russian Federation, 1970—1990
Backcast on the Base of Data for the Soviet Union

enabled to forecast and simulate complete dynamic trade matrices, dependent on the scenario input.

The base version LPS-W 0.19 includes 989 equations (simultaneous core: 389). It represents submodels for the following seven countries and two country aggregates:

Countries: *Brazil, China, Germany, India, Japan, Russia, USA*

Country aggregates: *European Union without Germany, Rest of the World*

Furtheron, aggregates for the BRIC countries and the core "Western" block (USA, EU and Japan) are derived.

In stylized notation, the main relations in LPS-W can be written as follows ("+" denotes positive, "–" negative impact of cause):

Supply side:

The "production function":

Potential Output = F (Capital Stock and its Level of Modernity (+),

Working People and their average Skills (+))

Demand Side:

The consumption function:

Private Consumption = F (Income from wages(+), Income from

Profits(+), Interest rate (–)

The investment function:

Fixed Capital Investment = F (Change of Demand (+), Depreciation (+), Interest rate (–), Profits (+))

Imports and Exports:

The country/regional models are linked by the country/regional import and export functions in a dynamic 9 X 9 trade matrix.

The model includes a general "Keynesian type" function for the countries imports:

Imports of countries 1…m = F (Income <represented by disaggregated use> (+), relative price level towards other countries (–))

Exports of country i = Sum of Imports of country 1….m without i from country i (definitory)

The countries import structure from other countries may vary by their own and the other countries production structure.

For example: The Exports of Germany will benefit from high fixed capital investment demand in other Regions (production equipment), while Brazil might have a higher benefit from rising consumer demand (f. ex. coffee, meat).

The reliability of the model as a whole was tested with good results by dynamic ex-post simulations in the estimation period. This procedure tests, how the model tracks economic development in the past by only using the start values of the endogenous and the set of exogenous variables as predetermined values. The results are mainly assessed on the base of the AAPE (Average Absolute Percentage Error), the RMSPE (Root Mean Square Percentage Error) and the proportion of the components of Theil's error decomposition (bias, variance and covariance error) produced by the ex-post-simulation.

2.2. A Simulation Example: Possible Long Term Effects of Western Alliance Trade War on the World Economy

2.2.1. The "Scenario technique" as the basic Simulation Method

LPS-W as a well specified and evaluated SME-model is capable to perform simulations on the base of the "scenario technique".

For setting up such type of simulation studies the following steps are performed:

A baseline scenario for the simulation period is computed. It includes mainly the assumptions of the most probable developments in the case of a political status quo respectively in the absence of external shocks.

Afterwards alternative scenarios are specified, including assumptions about policy changes. That can be for example changes in interest rate policy, public investment, the oil price or in the case of our simulation example, trade sanctions. Afterwards these alternative scenarios are computed.

In the next and last step, the absolute and/or relative differences between the alternative scenarios and the baseline scenario are computed and evaluated

So the simulation output presented here is always to be understood as numerical deviations of the values of the variables from the "baseline scenario".

2.2.2. A Simulation Example: Trade War on Russia[1]

Till now, the aggressive policy of the US-dominated Western Bloc is aiming on moving further towards the Russian borders, both with increasing military power in NATO-countries that borders on Russia and with gaining influence in (still) Non-NATO countries bordering to it with the aim of an even more tight strategic encirclement of Russia. In the strategy for crippling Russia as an independent and strong power, one important element are the trade sanctions against Russia. The core aim is to inflict economic turmoil, leading to a loss of support for the government, focussed on national interest, to replace it by some sort of Neo-Jelzinism, giving the western alliance access to Russia´s vast resources. As we know, all this stayed wishful thinking of the NATO-elites.

[1] The following simulation was first presented during my 2015 presentations in Mexico.

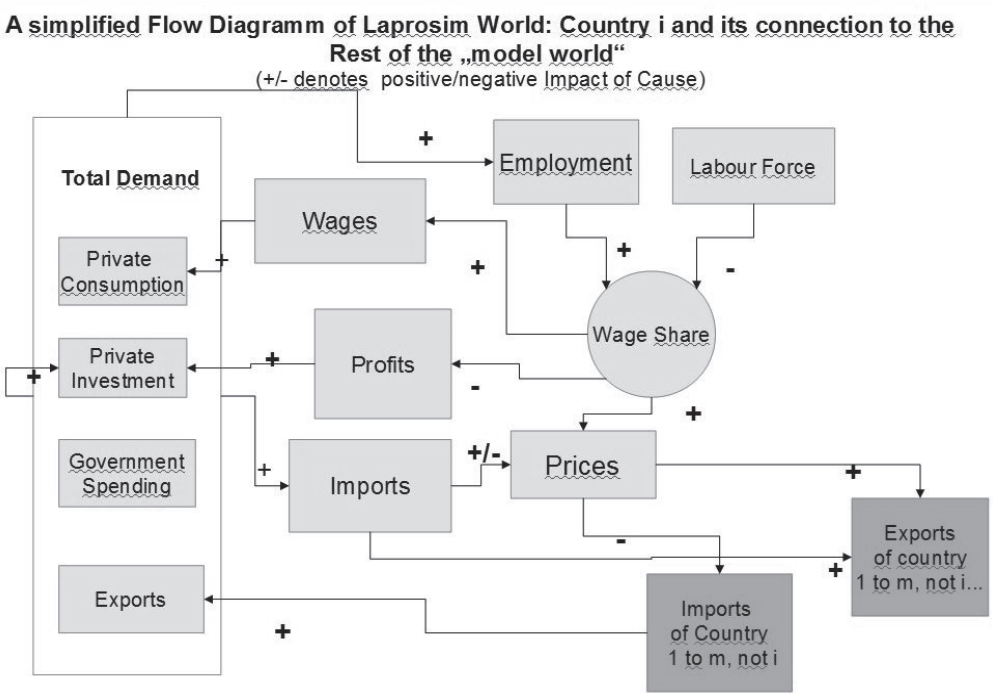

Fig. 2. A simple Flow Chart of LAPROSIM WORLD

The 2015 simulation took into account, that Germany alone lost 20 % of its exports to Russia in 2014 due to the sanctions in conjunction with the reunification of the Crimea with Russia.

The Scenario was based on the qualitative assumption, that this tensions could rise further. and lead to the assumption of much sharper export sanctions than actually realized since 2015.

So the following quantitative assumptions were made for the scenario: Core western allies (USA, the EU and Japan) reduce their exports to Russia by an absolute amount, that equals 50 % of the baseline exports to Russia of this group in 2015. Russia compensates this imports at 100 % by Chinese exports to Russia. So implicitly, an import substitution rate of 0 % was assumed. The absolute loss is kept in all following periods.

A key assumption on the long term effects of western export sanctions was the following: Loosing trust is like smashing a window: easy to do, but impossible to restore in the old framework. So Russia will keep in mind the difficulties with contracts concerning goods of strategic interest with western companies and will tend to substitute imports from the West gradually with imports from more reliable strategic partners, even if there might be quality differences concerning some products for a while.

As the results show in general, the negative Effects of "Western Alliance" export reduction hits mainly Germany, the "Rest of" the European Union and Russia. The USA as the driver of the sanction policy suffers nearly no negative effects.

Till 2017, Germany would have lost 0.7 %; The "Rest of the European Union" 0.9 % and Russia 1.0 % of real GDP towards the Baseline scenario. The slowdown in Europe decreases directly and indirectly Russia exports (Fig. 4 and Tab. 1). China would have gained 1.6 % of real GDP. For Japan and the USA only minor losses are calculated. Especially Japan would have had some benefits from a faster growth in China. For Germany, the biggest relative losses in employment are calculated (–0.8 % in 2017). The losses for Russia are relatively moderate (–0.2 %) (Fig. 5 and Tab. 2). The trade wars hit Germany and the other EU Countries in a similar way. Those with closer trade ties to Russia directly are hit harder than the others. Even those with a low share of exports to Russia would have felt the fallout of economic slowdown in the EU countries with the closer ties at so will be hit by indirect effects.

3. Final Note

Due to China's fast growing economic strength, both in the quantitative and the qualitative dimension, Russia has a real and growing strategic alternative to its trade with the countries of the western alliance. In addition, Russia seems to progress in import substitution. Also the simulation supports the view, that, for European business, export sanctions are a shot in the

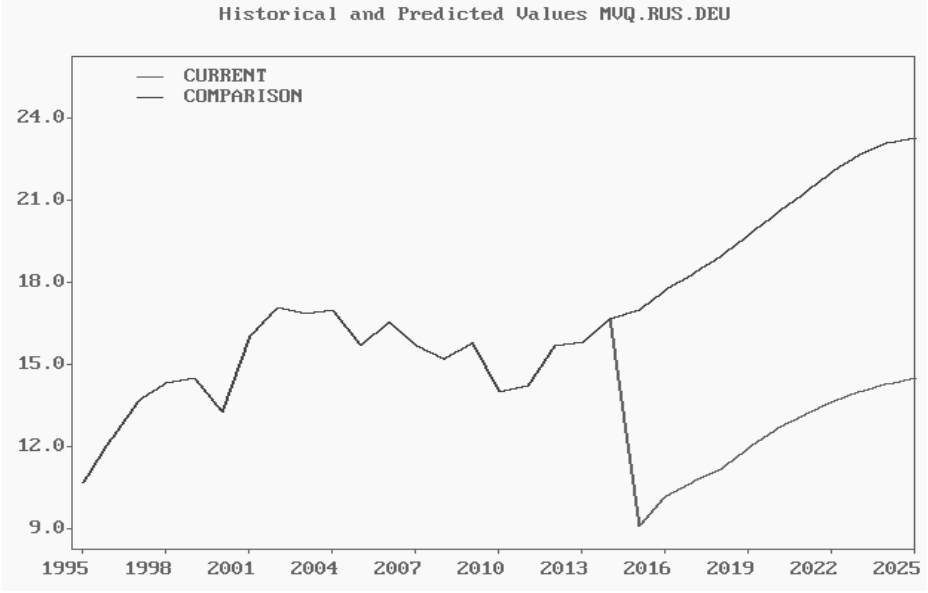

Fig. 3. Percent Share of Russian Imports from Germany in total Russian Imports: Baseline: Upper line Trade War Scenario: Bottom line

Fig. 4. Scenario Trade Wars: Percent Deviation of Real GDP from Baseline

own foot. In the last years, more and more of the ideological prejudiced political elite of Western Europe learned this fact and grasp, that it is self-defeating in the long run to proceed with the sanctions, but till now not with decisive change in actual policies. One reason may be, that parts of these elites are closely affiliated with the most aggressive parts of the US financial sector elites. LAPROSIM has many options for its application in practice, and has already shown its high efficiency in evaluation and forecasting. Some further Studies Performed with LAPROSIM downloadable in the Internet [7—9].

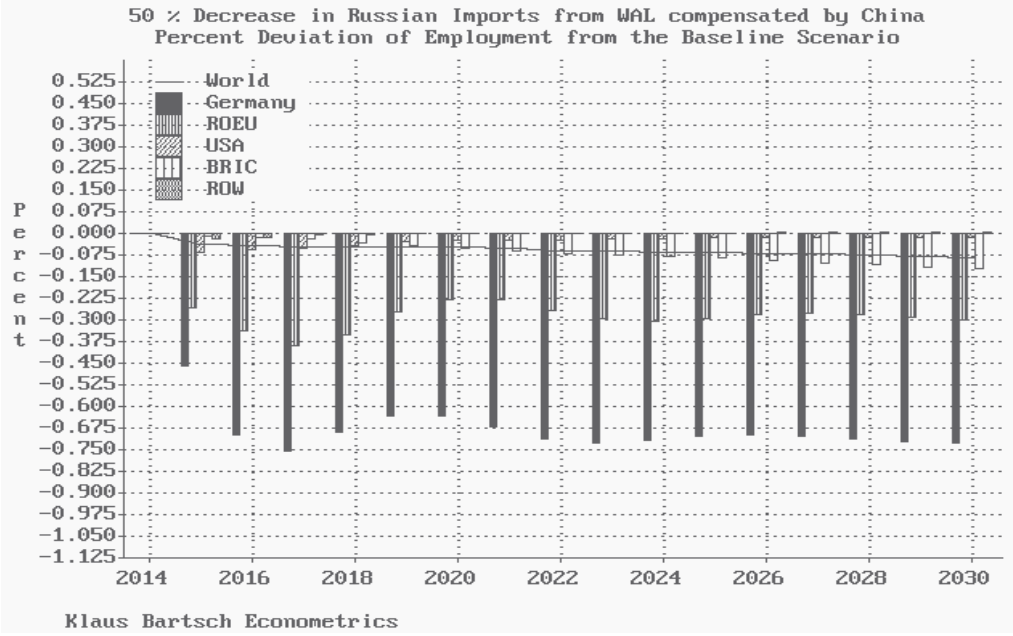

Fig. 5. Scenario Trade Wars: Percent Deviation of Employment from Baseline

Table 1

Scenario Trade Wars: Percent Deviation of Real GDP, Private Consumption and Fixed Investment from Baseline

	2015	2017	2020	2025	2030	2040
P.DE3.GDPV	-0.9	-0.7	-0.5	-0.5	-0.5	-0.5
P.EO3.GDPV	-0.6	-0.9	-0.5	-0.7	-0.7	-0.7
P.US3.GDPV	0.0	0.0	0.0	0.0	0.0	0.0
P.RU3.GDPV	-1.8	-1.0	-0.6	-0.9	-1.3	-1.0
P.VC3.GDPV	0.8	1.6	1.8	1.6	1.3	0.7
P.IN3.GDPV	-0.2	-0.6	-0.4	-0.3	-0.3	-0.3
P.BR3.GDPV	-0.2	-0.1	-0.2	-0.2	-0.3	-0.4
P.JA3.GDPV	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
P.RO3.GDPV	-0.2	-0.1	0.0	-0.1	-0.1	-0.2
P.DE3.CPV	-0.1	-0.6	-0.6	-0.7	-0.7	-0.9
P.EO3.CPV	0.0	-0.5	-0.6	-0.6	-0.6	-0.6
P.US3.CPV	0.0	0.0	0.0	0.0	0.0	0.0
P.RU3.CPV	-1.0	-1.3	-0.9	-1.8	-2.4	-1.4
P.VC3.CPV	0.1	0.9	1.6	1.7	1.4	0.8
P.IN3.CPV	0.0	-0.3	-0.5	-0.3	-0.4	-0.5
P.BR3.CPV	0.0	-0.1	-0.2	-0.3	-0.3	-0.4
P.JA3.CPV	0.0	0.0	-0.1	-0.1	0.0	0.0
P.RO3.CPV	0.0	0.0	0.0	-0.1	-0.1	-0.1
P.DE3.IFV	-1.5	-0.3	0.1	0.0	-0.1	-0.1
P.EO3.IFV	-1.4	-2.0	0.2	-0.7	-0.7	-0.6
P.US3.IFV	0.0	-0.1	0.0	0.0	0.0	0.0
P.RU3.IFV	-4.1	0.0	0.4	0.1	-0.2	-0.1
P.VC3.IFV	0.3	2.1	2.1	1.8	1.3	0.6
P.IN3.IFV	-0.1	-0.8	-0.5	-0.2	-0.3	-0.3
P.BR3.IFV	-0.6	-0.3	-0.1	-0.3	-0.4	-0.5
P.JA3.IFV	-0.1	-0.3	-0.2	-0.2	-0.1	-0.1
P.RO3.IFV	-0.3	0.0	0.0	-0.1	-0.1	-0.2

Acronyms:

DE:Germany
EO: Rest of EU
US: USA
RU: Russia
VC: China
IN: India
BR: Brazil
JA:Japan
RO: Rest of World

GDPV: Real GDP

CPV: Private Consumption, real

IFV: Real fixed Capital Investment

Table 2

Scenario Trade Wars: Percent Deviation of Export Volume, Import Volume and Employment from Baseline

	2015	2017	2020	2025	2030	2040
P.DE3.XGSV	-2.1	-2.1	-1.5	-1.5	-1.5	-1.4
P.EO3.XGSV	-1.8	-2.0	-1.5	-1.5	-1.5	-1.4
P.US3.XGSV	-0.8	-0.6	-0.4	-0.4	-0.4	-0.5
P.RU3.XGSV	-1.9	-1.8	-1.2	-1.2	-1.2	-1.0
P.VC3.XGSV	2.6	2.2	2.0	1.6	1.3	0.8
P.IN3.XGSV	-0.6	-0.7	-0.5	-0.5	-0.4	-0.4
P.BR3.XGSV	-0.9	-0.4	-0.3	-0.3	-0.3	-0.4
P.JA3.XGSV	-0.1	-0.3	-0.1	-0.1	-0.1	-0.1
P.RO3.XGSV	-0.5	-0.2	-0.1	-0.1	-0.2	-0.3

Acronyms:

DE:Germany
EO: Rest of EU
US: USA
RU: Russia
VC: China
IN: India
BR: Brazil
JA:Japan

End of table 2

P.DE3.MGSV	-1.7	-1.8	-1.5	-1.6	-1.7	-1.9
P.EO3.MGSV	-1.4	-1.8	-1.3	-1.4	-1.3	-1.3
P.US3.MGSV	-0.6	-0.5	-0.3	-0.3	-0.3	-0.3
P.RU3.MGSV	-2.7	-1.4	-0.9	-1.4	-1.7	-1.2
P.VC3.MGSV	1.0	2.1	2.2	1.8	1.4	0.8
P.IN3.MGSV	-0.1	-0.5	-0.7	-0.5	-0.5	-0.6
P.BR3.MGSV	-0.7	-0.4	-0.1	-0.3	-0.5	-0.5
P.JA3.MGSV	0.0	-0.2	-0.2	-0.1	-0.1	-0.1
P.RO3.MGSV	-0.3	-0.1	-0.1	-0.1	-0.1	-0.2
P.DE3.ET	-0.5	-0.8	-0.6	-0.7	-0.7	-0.8
P.EO3.ET	-0.3	-0.4	-0.2	-0.3	-0.3	-0.3
P.US3.ET	-0.1	-0.1	0.0	0.0	0.0	0.0
P.RU3.ET	-0.3	-0.2	-0.1	-0.4	-0.6	-0.6
P.VC3.ET	0.0	0.0	-0.1	-0.1	-0.1	0.0
P.IN3.ET	0.0	0.0	-0.1	-0.1	-0.1	-0.2
P.BR3.ET	0.0	0.0	0.0	-0.1	-0.1	-0.1
P.JA3.ET	0.0	0.0	-0.1	-0.1	-0.1	-0.1
P.RO3.ET	0.0	0.0	0.0	0.0	0.0	0.0

RO: Rest of World

XGSV: Real Exports

MGSV: Real Imports

ET: Total Employment

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