

Firms' role in perpetuating macroeconomic trends

Janina Urban, j_urban@live.de

1. Introduction

Contrary to the advice of renowned US-American economists and a growing number of German ones, Germany is not deviating from its position as the 'export world champion' for as much of a time as from 2002 until 2018 by now. The emergence of interdependent and apparently permanent trade imbalances i.a. between the US, UK, China, Germany and Japan is either driven by, or (re-)produces personal and functional income inequalities, and financialization. This short paper (and research proposal) wants to add to this growing body of research by introducing a meso-level and by giving supply-side arguments some relevance in a demand side vision of the economy.

This is done by recapitulating current findings on income inequalities, trade imbalances and results from a survey with German manufacturing firms, and applying the causation and affectedness from that debate to the German manufacturing sector. It may show that rather than being the sole leader or profiteer of the German strongly export-led model, the industrial Mittelstand has a double-edged position. This varies between sensitiveness to oil and energy prices and also profiting from indirect subsidies, between export orientation and some relevance of domestic demand, between market leadership and competition with national and international firms.

2. Theoretical part

In their recommendations to the Group of the 7 most developed countries, how to deal with the just beginning Global Financial Crisis (GFC) in 2009, Jean-Paul Fitoussi and Joseph Stiglitz identified an aggregate demand deficiency as the structural reason of the crisis. Asymmetric globalization, lax corporate governance and decreasing egalitarian orientations after the Second World War had caused rising income inequalities and thus the policy to substitute wage increases by credit. (Fitoussi & Stiglitz 2009)

Authors from political economy identify a shift in the capitalist reproduction in the 1970s with the transition from the rather nationally oriented Fordist, towards the heterogeneous, internationally operating Post-Fordist regime (Hirsch & Roth 1990; Jessop & Sum 2006). This shows in macroeconomic indicators with wages falling behind productivity development and diverging according to skill group, which affects the domestic demand channel, unbalanced trade which is mostly based on global value chains and competition in wage and environmental standards, internationalized financial markets (Busch & Land 2012), and a shift towards decreasing government autonomy through an eroding tax basis (Streeck 2012) and dependence on financial markets (Gabor 2016).

Fordism

1. Mostly national mass production with labor struggle and environmental damage accruing at home
2. Wages in line with the productivity development

Post-Fordism

1. Global value chains with environmental damage labor struggle and environmental damage accruing in differing countries
2. Wages below productivity development, and

divergences with regard to skill-groups

- | | |
|--|---|
| 3. High government taxation and spending | 3. High government spending until 1990s, then erosion of tax basis and public debt brakes |
| 4. Mostly balanced trade accounts and trade according to comparative advantage | 4. Trade imbalances, trade by win of market shares, competition in wage and environmental standards |
| 5. Fixed exchange rate regime and strong financial market regulation | 5. Flexible exchange rate regime and lax financial market regulation |

The development in wages, production and distribution as well as trade imbalances and the effects globalization, financialization and a public policy shift will be researched.

2.1. Personal income distribution

The seminal paper of Thomas Piketty and Emmanuel Saez on the resurgence of income inequality in the United States to a level of before World War II marks a major point of reference in the discussion on personal income inequality and sources of financial crises (Piketty & Saez 2003). Their compilation of data revealed the rising concentration of income, with 45 percent accruing to the top decile of the income distribution, excluding capital gains in the US. The top 1 percent hold 20 percent of the national incomes in the Anglo-Saxon countries, US, UK and Canada, less pronouncedly in Australia and New Zealand, while the top one percent in the European and corporatist countries, Germany, France and Japan accrue about 10 percent of the incomes (with Sweden and the Netherlands about 5-7). Piketty's explanation for this development in the distribution has been that the growth of return on capital has been larger than the rate of economic growth (Piketty 2014), and that (skill-biased) technological change, the taxation regime (Piketty & Saez 2013), and historical reasons are major determinants (Atkinson & Piketty 2010). This means that i.a. the expansion of financial markets has allowed profit rates in this sector and not equally in the real economy. Lower taxes on high incomes contributed to sharp wage increases in the managerial levels, or higher wages motivated these groups to lobby for lower taxes. Further reasons for a divergence in wages will be elaborated upon in the following section on the functional income distribution since there are common causes. The notion that high manager remuneration is included in the wage share and that it most probably exceeds its marginal product should thereby be kept in mind.

2.2 Functional income distribution

In a competitive environment the two factors in production, capital and labor, are assumed to receive remuneration according to their marginal contribution to output. Technological change is thought to affect the labor and the capital share of income according to production choices of profit-maximizing firms, implying different elasticities of substitution between them, and according to the supply of these factors. If the elasticity of substitution for labor is larger than one, then this non-neutral technological change decreases the labor share of income, and vice versa. If the elasticity of substitution is equal to one, the shares remain unchanged. (Brown & de Cani 1963, p. 289)

The stability of the functional income distribution has for long times been assumed to be stable, until research uncovered its decline and divergence with regard to skill. Recent studies have found technological development to be capital augmenting since the 1980s (Bassanini & Manfredi 2014; European Commission 2007) while others find support for neutral or labor enhancing technological change (ILO 2011; Stockhammer 2017; Chirinko & Mallick 2014). An increased supply of one factor leads to a decrease in the share of the other, if the elasticity of substitution for the second factor is larger than one. If the supply of capital goods increases – and their prices decrease – the share of labor falls, as recently studied by Loukas Karabarbounis and Brent Neiman (Karabarbounis and Neiman 2014). Technological change also affects skill groups of workers differently, expecting that lower skilled labor is rather substituted for due to a higher degree of routine tasks which can also be completed by machines & computers and higher-skilled labor being complemented by technological change (Acemoglu & Autor 2011; Autor & Dorn). Manufacturing and transportation jobs are found to have a high degree of routine exposure (ibid.). The degree to which the exposure of routinization is deterministic remains disputed in industrial sociology (e.g. Hirsch-Kreinsen 2016; Ortmann & Walker 2018) while others have provided alternatives measures of skills (e.g. OECD 2016; CEDEFOP 2012), potentially implying differing exposures to automation. The development of the labor share is also affected by the productivity development (and vice versa, as Servaas Storm argues) which has been steadily decreasing throughout the past decades (Gordon 2000, 2015; Eichengreen 2015; Summers 2015), and diverges with regard to sector (e.g. IMF 2017; Storm 2017).

If the labor and the goods markets are not fully competitive, the relative bargaining power of capital and labor also affect the functional income distribution, as some authors have pointed out (Brown & de Candi 1963 allude to this in their first footnote; Bental & Demougin 2007; ILO 2011; Piketty & Saez 2013; Guschanski & Onaran 2018). Three channels, labour market institutions, financialization and globalization have been proposed as affecting factor's bargaining power as well as skill levels of workers differently. The effect of **labour market institutions** is quite straightforward in that union density, strike activity, collective bargaining arrangements and minimum wages increase labor's bargaining power through the price effect (wages), while the quantity effect is ambivalent depending on the subsequent development in employment and demand (ILO 2011, pp. 62-63). Government benefits increase labor's bargaining power as this increases worker's fall-back options to market income. A move towards limiting government expenditures in this regard has the adverse effect (Guschanski & Onaran 2018, pp. 46-47). While Guschanski and Onaran point to the relevance of choosing the right measures for capturing labor market institutions' role adequately (ibid.), Lucio Baccaro and Chris Howell stress that the content of institutions may also change, potentially also strengthening the bargaining power of labor less (Baccaro & Howell 2011) and by exerting own interests on other sector's unions (Baccaro & Pontusson 2016).

Next, changed bargaining positions due to **financialization** shall be expounded. Financialization has broadly increased bargaining power of capital, as raised capital mobility levels up its fall-back options for storage and investment (Guschanski & Onaran 2018, p. 48). The rise of shareholder orientation lets firms prioritize dividend payouts and interest payments, creating incentives to not raise wages and keep a mark-up on production costs for signaling profitability to shareholders (Dühaupt 2016). The option to store capital in financial products may decrease engagement in productive activities, also lowering labor's bargaining power (Lin & Tomaskovic-Devey 2013; Alvarez 2015). Raised offers to households to

sustain their consumption level with credit and mortgages decreased pressures for more favorable wage negotiations (Rajan 2010; Belabed et al. 2013; Kohler et al. 2018). A further indirect effect of financialization on the labor share may be that government bonds have obtained an important role in financial markets (Gabor 2016) so that their function is altered from alleviating unemployment and stabilizing recessions towards supporting nation's credibility in financial markets.

Globalization counts as a further relevant phenomenon influencing the factor shares and the bargaining power of capital and labor. It can, like technological development, increase capital shares, i.a. when capital flows from capital abundant, developed countries to labor abundant countries as assumed in the Heckscher-Ohlin Stolper-Samuelson based model. The factor more intensively used in production receives its respective marginal contribution, which implies that the labor share decreases in developed countries if the elasticity of substitution is lower than one. (Guschanski & Onaran 2018, p. 49) According to newer trade theory, trade in tasks rather than goods has positive effects on the wages of offshored tasks as also countervailing effects through capital deepening and increased competition for low-skill labor (Grossman & Rossi-Hansberg 2006). Offshoring and foreign direct investments (FDI) thus affect skill groups differently while the fall-back option for capital are increased on the one hand, and put into competition with the capital of other countries on the other hand. (Guschanski & Onaran 2018, p. 49)

2.3. Trade imbalances

Trade imbalances have been identified as having contributed to financial crisis as they allowed some countries, like the US, to run major trade deficits, and others like China and Germany, to run large surpluses. Menzie Chinn, Barry Eichengreen and Hiro Ito survey five hypotheses for driving variations in the trade account (Chinn et al. 2014). The 'twin deficit' hypothesis conjectures that a current account deficit is more likely to coincide with a government deficit (Chinn 2005), while the 'savings glut' hypothesis links the economic growth of emerging markets to the stances in current accounts (Bernanke 2005), and the demographic hypothesis to investments falling behind savings in aging populations (except for the special US case) (Cooper 2008). Another hypothesis is that inflated asset prices, including real estate prices, alter saving (/investment) and consumption patterns as well as the exchange rate, and thus create and sustain trade imbalances (Aizenman & Jinjarak 2009; Fratzscher & Straub 2009). Caballero et al. stress the role of the financially developed Anglo-Saxon countries being able to place their bonds internationally due to their liquid markets and thus being able to sustain current account deficits for overly long times (Caballero et al. 2008). They find support for the twin deficit hypothesis in the developed and the savings glut hypothesis in the emerging economies in the long term (between 1981 and 2008), while asset prices had been driving the current account in the pre-crisis period. The role of the US Dollar as world reserve currency shows relevant in their empirical evaluation while they find arguments on mercantilist policies of East-Asian countries not convincing as they were only a recent phenomenon (Chinn et al. 2014).

Such categorizations, like 'debt-led consumption boom', 'domestic demand-led', 'strongly export-led mercantilist' or 'weakly export-led' growth, as put forward i.a. by Eckhard Hein and Matthias Mundt, though show to be a useful scientific concept as they grasp important regularities of macroeconomic indicators (Hein & Mundt 2012). Furthermore, the before mentioned hypotheses were based on the loanable funds theorem which oversimplifies the savings-investment relation. A balance-sheet view on

the 'twin deficit' hypothesis would imply that trade imbalances are not only mirrored by the government but also by the private balance, with the former, not the latter, balancing trade deficits since the 1990s in the US (Godley 1999). Regarding the 'savings glut' hypothesis, Fabian Lindner shows that East Asian countries' saving does not force trade deficits onto US American households but rather that "[e]ach Dollar that non-Americans invest in the US has either been earned or borrowed in the US before" (Lindner 2015, p. 1). Stockhammer argues that the interaction between rising inequalities and financial deregulation under a flexible exchange rate regime caused rather than limited trade imbalances (Stockhammer 2015). In their survey of the European countries, Gräbner et al. confirm the vision that with greater economic integration different growth models took shape, also through the amplification of capabilities which the countries had beforehand. The export success of countries such as Germany, Austria, Finland, Sweden and Denmark (core countries) was mirrored by a measure for the complexity of their technologies, while this measure had been increasing more slowly through economic integration in the debt-led or domestic demand-led countries Greece, Italy, Spain, Portugal and France. A catch-up of the East-European economies Czech Republic, Hungary, Slovakia, Bulgaria and Baltic countries and a specialization on financial services or the position as tax haven had been other options which countries like the Netherlands, Malta and Ireland turned to, with a dampening effect on the technological complexity of their products (Gräbner et al. 2018).

2.4. Interactions between income inequality and trade imbalances

The interaction between income inequality and trade imbalances have already been alluded to and shall be further surveyed. Stockhammer pointed to the emergence of different growth regimes in which income inequality causes trade imbalances through the demand for financial assets from lower and high income households (Stockhammer 2015). Jan Behringer and Till van Treeck show that rising personal income inequality tends to coincide with current account deficits while stronger functional income inequality tends to coincide with current account surpluses (Behringer & van Treeck 2015). Eckhard Hein finds that the 'export-led mercantilist' countries Finland, Germany, Sweden, and the 'debt-led consumption boom' countries US, and UK saw rising personal income inequality while some 'debt-led consumption boom' countries, Greece, Ireland and Spain, and the 'domestic demand-led' country France did not experience larger changes in the Gini coefficient. The wage share in the 'debt-led consumption boom' countries Greece, Ireland and Spain decreased the most, while the trend for the other countries has been a slow decline (after a steep one for France, Italy, and Portugal in the mid 1970s). (Hein 2013)

Stockhammer surveys different economic drivers of inequality and trade imbalances and refers to Mainstream economics explanations such as financial market exuberance (Brunnermeier 2009), and policy failures (Rajan 2010), as also to Daron Acemoglu who describes policy decisions as tilted towards preferences of wealthier people (Bartels 2008 for the USA; also Elsässer et al. 2017 for Germany) (Acemoglu 2018), as well as to Marxist explanations which refer to a decline in the profit rate. He highlights the relevance of accounting for growth regimes and the effect which the desire for speculation of higher income households has on trade imbalances, next to the usually cited lower income household indebtedness (Stockhammer 2015, pp. 951-954). Jan Behringer and Till van Treeck map out the concept of 'trickle down consumption', in which households with lower, stagnating income reduce saving and take on more debt, and the 'underconsumption hypothesis' which highlights the lack of demand in capitalist economies, but with a potential positive effect on investment. The first explanation may thus

apply to the current account deficit countries, especially the US, and the UK and the latter to the current account surplus countries China, Germany and Japan who record high retained earnings. That these earnings have not been spent, the authors ascribe mostly to social norms. (Behringer & van Treeck 2018)

Political economists from the Varieties of Capitalism strand of literature have stressed the presence and relative stability of liberal and coordinated market economies due to pre-strategic preferences of actors (or social norms) (Soskice 1999). Germany's Diversified Quality Production (DQP) and embedded market orientation has been regarded an ideal counterexample to the liberal market type which an increasing number of authors called into question due to common neoliberal trajectories (Baccaro & Howell 2011). Lucio Baccaro and Chiara Benassi argue that Germany has moved from an export and consumption oriented economy towards a solely export-led one. The mechanism they propose is that increased price sensitivity made the German exporting sector and its unions support the German wage suppression (or Neo-mercantilist) model, also endorsing wage suppression in the (low-skill) service sector. (Baccaro & Benassi 2016) In comparison to Sweden and the UK, where low-skill service sector wages had not been stagnating, Germany has been less able to support a domestic demand channel (Baccaro & Pontusson 2016). So, similar to Gräbner et al., they aim to account for changes at the micro- or meso-level (firms' competitiveness, wage agreements and coverage etc.) and integrate supply-side arguments on disposing of the 'leading' technology or economic sector into an otherwise demand side growth model.

This view shall also be taken in this paper, but with a slightly different twist, inspired by the categorization Guschanski and Onaran introduced with regard to the wage share. The reason for the persistence of the German strongly export-led model thus may arise due to cost factors in the manufacturing sector, also different from wages, such as environmental and refinancing costs, and lower demand, as shall be shown in the following section. The bargaining power of this sector may on the one hand contribute to the persistence of lower wage to productivity development vis-à-vis its workers and the balanced budget policies of the government, but on the other hand may receive less political attention compared to the financial and ICT sectors, or it is represented in a way that does not fully cover its interests. The mechanism that is proposed is the presence of 'bargaining cascades' which are a spiral of inequality and trade imbalance intensifying behaviors.

3. Real-world economic puzzle

The Mittelstand represents the Diversified-Quality Production model referred to in the Varieties of Capitalism literature, in the sectors of printing production, metal production, machine construction, electrotechnics or material production, automotive suppliers etc. (IfM Bonn 2005, p. 56), employs 61 % of the active workforce and contributes with 48 % to the national value added (destatis 2018).

The association of the German industry (BDI) commissioned a semi-annual survey on the German Mittelstand (owner-run companies, also the ones larger than 500 employees) from 2005 until 2016 involving questions on the strategies of these firms and their opinion on the respective present-day economic and political situation. The answers (with mostly similar response options) to the same questions in the autumn term surveys are shown in figure 1.

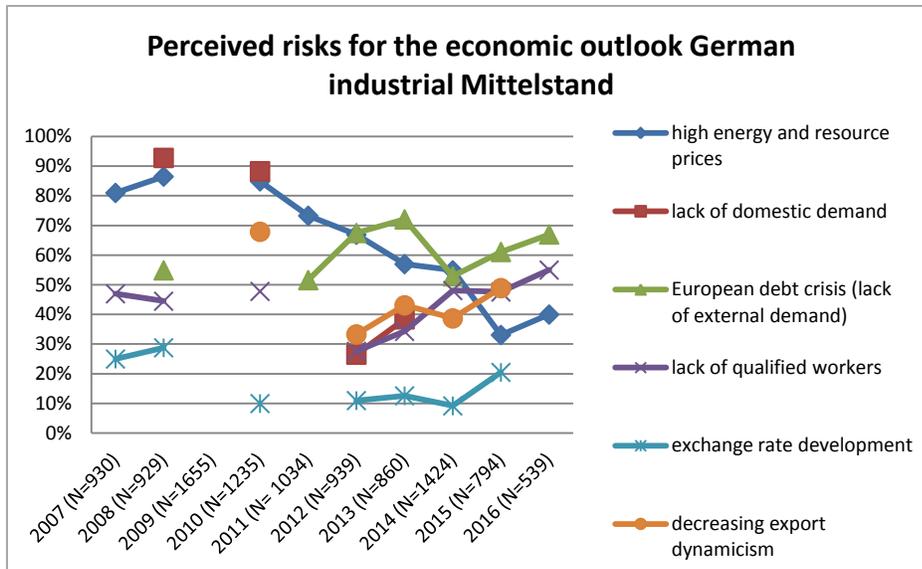


Figure 1 Perceived risks for the economic outlook of the German industrial Mittelstand, “relevant” or “rather relevant” topic, own representation IfM Bonn 2007-2016.

Contrary to the publicly held view, high energy and resource prices, a lack of domestic demand, the European debt crisis (which can be interpreted as a lack of external demand, as the EU is still the major trading partner) and decreasing export dynamicism count as more important issues for the Mittelstand than finding sufficient qualified workers.

It is certain that the survey has to be carefully evaluated for the substantiality of the problems mentioned since many of the answers are influenced by the public debates of that time. Looking at resource prices first, we can observe that oil and energy prices have been peaking before the financial and economic crisis of 2007/8 and remained quite high between 2011 and 2015, declined sharply and fare currently (2018) at about 100 index points with 2010=100 (<http://hwwi-rohindex.de>).



Figure 2 HWWI-Index for nutritional (black), industrial (grey) and energy resources (light blue), overall index (blue). Source: Wirtschaftsdienst

It is difficult to predict if energy and oil prices will again be a bigger issue for the Mittelstand. On the one hand demand for resources will most probably remain high over the next few decades with constantly growing emerging market economies (e.g. Energy Information Administration 2018), international (and national) programs to internalize environmental costs (e.g. UNDP 2018; Climate Reality 2016), and through political factors. On the other hand further efficiency gains will decrease prices, certain political constellations as well as national subsidies. A study of the Fraunhofer Institute and Ecofys compares the

effect of subsidies on the industrial energy prices of a selection of European, American and Asian countries and concludes that the subsidy keeps the sales price of a product (taken material and labor cost as given) just below the margin of international market prices (Fraunhofer ISI & Ecofys 2015). This hints to the tendency of environmental costs (still) not being properly shown in prices while the subsidies and exemptions analyzed in the before mentioned study also reflect policy shifts towards renewable energy production. Energy prices and their political determination may thus count as a further important field, which drives decisions and economic models in the Post-Fordist constellation.

The lack of domestic demand problem of the German Mittelstand in 2008 and 2010 can be explained by the financial and economic crisis starting in 2008. That it reappears in 2012 and 2013 for 27 and 38 percent of the firms as relevant or rather relevant problem, and taken together with their concerns on the European debt crisis, there is an indication for Keynesian arguments not only for the short but also the longer term. It can be read as firms not increasing wages sufficiently, the German and European governments not spending enough in crisis times due to rather monetarist or ordoliberal views on the economy, due to financialization since government bonds represent the anchor security in financial markets, or the dominance of German interests in the European austerity programs (safeguarding money of German banks/wealth owners i.a. in Greece and Spain, and legitimizing its own Mercantilist model by forcing it onto other countries). The Mittelstand obviously takes a double-edged position in this constellation as it profits from German economic policies and discourse to keep inflation low (restrained government spending & central bank policies) and to support wage moderation (also in other than their own sector, Agenda 2010 etc.) for export successes, but a lack of demand due to lower government spending and wages also affects their revenues negatively. Not surprisingly, this double-edged position is not represented by the way that the questions are posed in the BDI commissioned survey, as they contain a very strong orthodox economics vision of firm and economic processes. Wages and the government's role with taxation, bureaucracy and public spending (even in crisis times) are constantly framed in negative ways, allowing only for an indirect analysis of business challenges.

Last but not least, between 33 % in 2012 and 48 % of the firms in 2015 name decreasing export dynamicism as a relevant or rather relevant problem. This may just reflect the before mentioned lack of external demand or lend support to the arguments put forward by Lucio Baccaro and Jonas Pontusson on the increased price sensitivity of German exports. (Baccaro & Pontusson 2016, pp. 22-24)

It shows that rather than being the sole leader or profiteer of the German Mercantilist model, the industrial Mittelstand has a double-edged position. This varies between sensitiveness to oil and energy prices and also profiting from indirect subsidies, between export orientation and some relevance of domestic demand, between market leadership and competition with national and international firms.

4. Research design

The research design consists of two parts, one of qualitative, and a second of quantitative nature. The first part consists of qualitative interviews with CEOs from the Mittelstand based on the systematization in figure 3. Each of the fields yields specific questions, which shall shortly be exemplified here. Question: If the production of your goods is broken down to machinery, labor (→ 1.2 & 3.2) energy (→2.2, 2.4), and capital costs (→4.2 & 4.4), how has their relation approximately changed over the past twenty

years? (present set of pre-analysed ratios, and single question for each factor of production). 1) How much has automation – the substitution of work processes from people to machinery – in the domestic branches increased throughout the past twenty years and what have been the main drivers (prices of labor, capital goods, resource prices, capital costs)? How much does an increase of 100 € per month per worker, excluding inflation, raise the likelihood of automation in domestic production (1.1)? How much does an increase of 100 € per month per worker, excluding inflation, raise the likelihood of moving the work process or the production to another country (3.1)? How have your sales prices developed internationally e.g. vis-à-vis ICT products (1.4), do you face more competition internationally (3.4) and do you think, politics supports your sector more/less than others (1.3 & 3.3)? The second phase would involve presenting the current macroeconomic discussion and the Mittelstand survey and examine how if the interpretation of the business situation (e.g. with regard to the role of demand → 5 and environmental factors 2.1 & 2.3 changes).

Advantages for the industrial Mittelstand in P.-F.		Disadvantages for the industrial Mittelstand in P.-F.	
Bargaining argument	Price argument	Bargaining argument	Price argument
1.1 Technological development: substitution threat reduces labor bargaining power	1.2 Technological development: prices of capital goods decline, incentivizes Mittelstand to invest into capital goods	1.3 Technological development: bargaining power of higher value added sectors rises	1.4 Technological development: prices of own products stagnate, as value added is drawn to other sectors (ICT etc.)
2.1 Environmental factors: competitiveness threat → favoring industrial policies	2.2 Environmental factors: Rising energy efficiency	2.3 Environmental factors: international climate agreements	2.4 Environmental factors: Rising energy costs due to international agreements
3.1 Globalisation: “FDI” & “migration”: outsourcing and replacement threat reduce labor bargaining power; downward pressure on wages of lower skilled sectors; Mittelstand depends less on domestic demand	3.2 Globalisation: “FDI” & “import penetration”: cost seeking FDI and import penetration reduce the price of intermediate goods; Mittelstand can increase its market share in more countries	3.3 Globalisation: FDI of other countries appear as buyers of companies; firms depend on trade and industrial policies of other countries	3.4 Globalisation: “FDI”: market seeking FDI: wages for high-skilled workers may increase; “intermediate import penetration” and “FDI of other countries” increases product competition

4.1 Financialization: “Financial income”: Mittelstand does not have to invest in real capacities which puts downward pressure on wages	4.2 Financialization: “Financial income”: Mittelstand has more alternative profit options	4.3 Financialization: increased short-term orientation of partnering & competing firms due to shareholder orientation	4.4 Financialization increases “interest payments” ; prices of own products stagnate, as value added is drawn to financialized sectors
5.1 Labor market institutions’ decline increases Mittelstand’s bargaining power and the ability to be “trend setter” also for other sector’s unions	5.2 Labor market institutions’ decline lowers labor costs and living costs (through cheap services) for its workers	5.3 Labor market institutions’ decline weakens their voice vis-à-vis higher revenue-yielding firms	5.4 Labor market institutions’ decline weakens domestic demand

In the second part a model with an “ex-ante Mercantilist” version can be drafted which assumes that the dominant economic actors attain what is in their interest, and an “ex-post Mercantilist” version which looks at the actions and subsequent reactions of the economic agents, in the high and low skill manufacturing and services, their unions, and the government. The idea is to show that the bargaining channel also operates at the firm level and vis-à-vis other sectors and other countries.

5. Literature

Acemoglu, Daron (2011): Thoughts on Inequality and the Financial Crisis, American Economic Association, <http://economics.mit.edu/files/6348>

Acemoglu, Daron; Autor, David (2011): Skills, Tasks and Technologies: Implications for Employment and Earnings. In: Handbook of Labor Economics, Volume 4b.

Aizenman, Joshua; Junjara, Yothin (2009): Current account patterns and national real estate markets. In: Journal of Urban Economics 66, pp. 75-89.

Alvarez, Ignacio (2015): Financialization, Non-financial Corporations and Income Inequality: The Case of France. In: Socio-Economic Review 13, pp. 449–475.

Atkinson, Anthony B.; Piketty, Thomas (2010): Top Incomes in the Long Run of History. In: Atkinson, Anthony B.; Piketty, Thomas: Top Incomes. A Global Perspective. Oxford: Oxford University Press.

Autor, David H.; Dorn, David (2013): The Growth of Low-Skill Service Jobs and the Polarization of the US Labor Market. In: American Economic Review 2013, 103(5), pp. 1553–1597.

Bartels, Larry M. (2008): Unequal Democracy: The Political Economy of the New Gilded Age. Princeton: Princeton University Press.

Baccaro, Lucio; Benassi, Chiara (2016): Throwing out the ballast: growth models and the liberalization of German industrial relations. In: *Socio-Economic Review* 15(1), pp. 85–115.

Baccaro, Lucio; Howell, Chris (2011): A Common Neoliberal Trajectory: The Transformation of Industrial Relations in Advanced Capitalism. *Politics & Society* 39 (4), pp. 521-563.

Baccaro, Lucio; Pontusson, Jonas (2016): Rethinking Comparative Political Economy: The Growth Model Perspective. In: *Politics & Society* 44(2), pp. 1-33.

Bassanini, Andrea; Manfredi, Thomas (2012): Capital's Grabbing Hand? A Cross-Country/Cross-Industry Analysis of the Decline of the Labour Share", OECD Social, Employment and Migration Working Papers, No. 133, OECD Publishing, Paris.

Belabed, Christian A.; Theobald, Thomas; van Treeck, Till (2013): Income Distribution and Current Account Imbalances. In: *Cambridge Journal of Economics* 42(1), pp. 47–94.

Bental, Benjamin; Demougin, Dominique (2007): Declining Labor Shares and Bargaining Power: An Institutional Explanation. Humboldt University Working Paper.

Bernanke, Ben (2005): The global saving glut and the U.S. current account, remarks at the Sandridge Lecture, Virginia Association of Economics, Richmond, VA, March 10.

Brown, Murray; De Cani, John S. (1963): Technological Change and the Distribution of Income. In: *International Economic Review* 4(3).

Caballero, Ricardo; Farhi, Emmanuel; Gourinchas, Pierre-Oliver (2008): An equilibrium model of 'global imbalances' and low interest rates. In: *American Economic Review*, 98(1), pp. 358–93.

CEDEFOP (2012): Building on skills forecasts — Comparing methods and applications. Research Paper No. 18.

Chinn, Menzie D. (2005): Getting serious about the twin deficits, Council Special Report 10, Council on Foreign Relations, New York.

Chinn, Menzie; Eichengreen, Barry; Ito, Hiro (2014): A forensic analysis of global imbalances. In: *Oxford Economic Papers* 66, pp. 465–490.

Chirinko, Rober S.; Mallick, Debdulal (2014): The Substitution Elasticity, Factor Shares, Long-run Growth, and the Low-frequency Panel Model. In: CESifo Working Paper 4895.

Cooper, Richard N. (2008): Globalization, demography, and sustainability. In: *Journal of Economic Perspectives* 22 (3), pp. 93–112.

Davis, Donald R.; Weinstein, David E. (2002): The Mystery of the Excess Trade (Balances). *The American Economic Review*, Vol. 92, No. 2, Papers and Proceedings of the One Hundred Fourteenth Annual Meeting of the American Economic Association (May, 2002), pp.170-174.

Dünhaupt, Petra (2016): Determinants of Labour's Income Share in the Era of Financialisation. Cambridge Journal of Economics 41, pp. 283–306.

Elsässer, Lea; Hense, Svenja; Schäfer, Armin (2017): "Dem Deutschen Volke"? Die ungleiche Responsivität des Bundestages. In: Zeitschrift für Politikwissenschaft.

European Commission (2007): Employment in Europe. Report of the European Commission.

Fitoussi, Jean-Paul; Stiglitz, Joseph (2009): The Ways Out of the Crisis and the Building of a More Cohesive World. OFCE Working paper, No. 2009-17.

Fratzcher, Marcel; Straub, Roland (2009): Asset prices and current account fluctuations in G7 economies, Working Paper No. 1014, European Central Bank, Frankfurt.

Gräbner, Claudius; Heimberger, Philipp; Kapeller, Jakob; Schütz, Bernhard (2018): Structural change in times of increasing openness: assessing path dependency in European economic integration. ICAE Working Paper Series No. 76.

Guschanski, Alexander; Onaran, Özlem (2018): Determinants of the Wage Share: A Cross-country Comparison Using Sectoral Data. CESifo Forum 2 / 2018.

Hein, Eckard; Mundt, Matthias (2012): Financialisation and the Requirements and Potentials for Wage-led Recovery—a Review Focussing on the G20', ILO Working Papers, Conditions of Work and Employment Series No. 37.

Hirsch-Kreinsen, Hartmut (2016): Digitalisation and low-skilled work. WISO Diskurs 19/2016.

ILO (2011): The Labour Share of Income: Determinants and Potential Contribution to Exiting the Financial Crisis. ILO World of Work Report: Making Markets Work for Jobs, Geneva, Chapter 3.

Kumhof, Michael; Lebarz, Claire; Rancière, Romain; Richter, Alexander W.; Throckmorton, Nathaniel A. (2012): Income Inequality and Current Account Imbalances. In: IMF Working Papers 12/08.

Kohler, Karsten; Guschanski, Alexander; Stockhammer, Engelbert (2018): The Impact of Financialisation on the Wage Share: A Theoretical Clarification and Empirical Test, Post-Keynesian Economics Study Group Working Paper 1802.

Lin, Ken-Hou; Tomaskovic-Devey, Donald (2013): Financialization and U.S. Income Inequality, 1970–2008. In: American Journal of Sociology 118, pp. 1284–1329.

Lindner, Fabian (2015): Did Scarce Global Savings Finance the US Real Estate Bubble? The "Global Saving Glut" thesis from a Stock Flow Consistent Perspective. IMK Working Paper 155. https://www.boeckler.de/pdf/p_imk_wp_155_2015.pdf

OECD (2016): Skills Matter: Further Results from the Survey of Adult Skills. OECD Skills Studies.

OECD Publishing, Paris. Ortmann, Ulf; Walker, Eva-Maria (2018): Arbeitsgestaltung jenseits von Automations- und Werkzeugszenario Betriebliche und überbetriebliche Bedingungen der Technisierung von Einfacherarbeit in der Lagerwirtschaft. FGW-Studie Digitalisierung von Arbeit 10.

Piketty, Thomas (2014): *Capital in the twenty-first century*. Cambridge: Harvard University Press.

Piketty, Thomas; Saez, Emmanuel (2013): Top Incomes and the Great Recession: Recent Evolutions and Policy Implications. In: *IMF Economic Review* 61 (3).

Rajan, Raghuran (2010): *Fault Lines: How Hidden Fractures Still Threaten the World Economy*. Princeton University Press.

Soskice, David (1999): "Divergent Production Regimes. In: Kitschelt, Herbert; Lange, Peter; Marks, Gary; Stephens, John: *Continuity and Change in Contemporary Capitalism*. New York: Cambridge University Press, pp. 101–134.

Stockhammer, Engelbert (2015): Rising inequality as a cause of the present crisis. In: *Cambridge Journal of Economics* 39, pp. 935–958.

Stockhammer, Engelbert (2017): Determinants of the Wage Share: A Panel Analysis of Advanced and Developing Economies. In: *British Journal Of Industrial Relations* 55, pp. 3–33.