#### László György – Dániel Oláh

## Economic Policy Tools to Increase Net Wage Share During a Crisis

### The Transition to a Wage-led Growth Model in Hungary

Summary: Labour has been acquiring a decreasing share of aggregate income since the eighties, despite the fact that its productivity has been increasing continuously. The 52.7 per cent average wage share of the Visegrád countries in 2016 is considerably lower than the 63.3 per cent EU average. As for Hungary, a 6.8 percentage point drop was recorded between 1995 and 2016, projected for the whole of the economy, which is considerable compared to the Central European average. Current literature suggests that the bargaining power of labour was undermined by technological innovations, economic globalisation and the weakening of trade unions. Hungarian economic policy took the former two factors as given and intended to break the downward trend by active labour market policies, pro-labour tax policies and the increase of the minimum wage, in other words through redistribution from capital incomes to labour incomes. The specific surtaxes levied on oligopolistic markets and on the beneficiaries of previous decades, as well as savings on public debt interest payments contributed to the creation of public employment programmes, the increase of family tax allowance and the reduction of personal income tax to a 15 per cent flat rate. These policies have influenced wage shares, which has been reflected in the almost 2 percentage point increase of wage shares from 2015 to 2016 according to Eurostat and Ameco data. If we consider the ratio of net real wage and real GDP, then the increase was larger, 5.05 percentage points between 2010 and 2016 or 6.15 percentage points when the family tax allowances are also considered. Hungarian crisis management is part of a new, post-Keynesian, long-term growth strategy, which is based on wage convergence instead of the previous debt-led growth. In line with scientific results, this strategy considers real wages as the primary factor catalysing long-term, sustainable economic growth through the increase of demand.

Keywords: wage share, labour share, functional income distribution, bargaining power

JEL codes: E25, J30, D33

The distribution of produced income was first analysed by 18–19th century economists. After a long hiatus, the issue has returned as the topic of scientific debates by the turn of the millennium. Following the classical economists, the neoclassical trend postulated

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that share from produced income is stable: consequently the analysis of the wage share is irrelevant (Lavoie – Stockhammer, 2012).<sup>1</sup> Rodriguez and Jayadev (2010) argue that we should return to functional analysis, based on production factors, because this way we might also explain the interpersonal inequalities between individuals. In recent decades, however, it has been stressed by several

economists that the share of employers and equity holders within the national income is not constant.<sup>2</sup>

By understanding these trends, we can get a better grasp of Hungary's crisis management policies, which placed a heavier burden on the capital factor than before, and also see that this crisis management in fact set out to facilitate a transition to a new, wage-led growth model. The alternative considerations, used as the theoretical basis for this strategy, have been present in the history of economic theories. Its underlying concept actually goes back to the 19th century theory of "under-consumption". This tradition was revived by John Maynard Keynes, whose concept of "insufficient demand" has become relevant again after the shrinkage of the wage share accelerated from the eighties. Global economy trends and pro-capital ideologies, triggering the decrease of the wage share, may have also contributed to the 2008 crisis and the emergence of greater inequalities within the developed world. Hungary's economic policymakers realised the disadvantages of the previously debt-led growth model and started the transition to a wage-led growth strategy during the crisis management. In our study, we describe our understanding of this strategy and show how significant incomes were redirected by Hungary's economic policy from the capital to the labour factor.

### WAGE SHARE DECREASE AND ITS REASONS

### Decreasing Wage-shares in Western Economies

The decrease of the wage share has been a clearly documented trend from the eighties (OECD, 2015; IMF, 2007; European Commission, 2007; BIS, 2006; ILO, 2011

and ILO, 2012). *Table 1* presents the changes in the wage shares. The first two columns include countries for which long time series can be found in the Ameco database. It shows that wage shares increased in the long term in Belgium, Luxembourg, the Netherlands, the United Kingdom and Denmark, while they decreased in the vast majority of the countries. There was a decrease in the most developed (groups of) countries also, such as the EU15 and the USA. The "negative record holders" are Greece and Ireland, where the wage share dropped by a quarter and a third respectively.<sup>3</sup>

We do not have reliable long-term data on wage share for several countries. For this reason, countries where changes can be analysed along a shorter timeline only are included in the second two columns of Table 1. This also shows a decrease in wage share in the majority of the countries, especially in Hungary, where the 2016 wage share is 6.8 percentage points lower compared to the 1995 level. Within the region, employees in Romania and Macedonia are the worst hit with an almost 20 per cent drop in wage share. In terms of the Visegrád countries, while their wage share decreased by 2.8 percentage points between 1995 and 2016, their average wage share of 52.7 per cent was more than 10 percentage points behind the EU and the EU15 averages in 2016. The decreasing trend was due to the 11.5 and 6.8 percentage point drops in Poland and Hungary, respectively.

#### Reasons for the Decrease in Wage Share

The opportunities and means to increase wage share during a crisis can be identified only once the reasons for the decrease have been explored. Consequently, we use the analyses in the scientific literature, published after the turn of the millennium, as reference in order to interpret the changes in wage share. Potential

### CHANGES IN THE WAGE SHARE (IN PERCENTAGE POINTS) AND ITS 2016 VALUES (IN BRACKETS, IN PERCENTAGES) IN THE WESTERN COUNTRIES

Country	Change	Country	Change		
between 1960-2	2016	between 1995–2016			
Luxembourg	6.6 (56.5)	Bulgaria	7.6 (64.0)		
Belgium	4.5 (66.1)	Latvia	5.0 (59.9)		
Netherlands	3.0 (66.0)	Czech Republic	4.0 (52.8)		
United Kingdom	1.7 (66.8)	Lithuania	3.4 (55.1)		
Denmark	1.0 (65.4)	Slovak Republic	3.2 (50.3)		
Sweden	-1.8 (62.6)	Cyprus	0.2 (59.4)		
EU15	-3.7 (63.8)	EU15	0.1 (63.8)		
Germany	-4.3 (62.7)	Iceland	-0.3 (70.9)		
France	-5.2 (67.1)	Estonia	-0.7 (63.0)		
Norway	-5.6 (57.9)	United States	-2.1 (62.1)		
Spain	-6.6 (60.8)	Croatia	-3.1 (67.9)		
United States	-6.6 (62.1)	Slovenia	-6.2 (71.4)		
Portugal	-8.0 (59.3)	Malta	-6.5 (53.9)		
Italy	-8.7 (60.7)	Hungary	-6.8 (56.4)		
Austria	-9.3 (63.3)	Poland	-11.5 (54.0)		
Finland	-11.3 (63.6)	Romania	-17.6 (50.6)		
Greece	-24.1 (58.5)	Macedonia	-23.2 (50.2)		
Ireland	-34.5 (40.7)				

Note: Data for Croatia refers to 1996–2016 and data for Macedonia refers to 1997–2016

Source: Ameco (calculated with GDP at factor cost)

factors suppressing the share of the wage bill include the movement of labour between sectors, technological changes, as well as globalisation in trade and finances. As opposed to these, the role and characteristics of the welfare state can be regarded as endogenous economic policy variables. These influences are exerted through labour's bargaining power (see Table 2).

Labour mobility between the sectors can be a factor that decreases wage share. This explanation, however, is refuted by the OECD's (2015) analysis: it looked at 20 in-

dustries in 26 countries from 1990 and concluded that the decrease in the average wage share is due to the wage share drops within the sectors. From 1990 to the early 2010s, wage share decrease was a general tendency in several sectors, which is also corroborated by ILO's analyses (OECD, 2015).

Several authors, such as *Kristal* (2010) and *Estrada-Valdeolivas* (2012) note the changes in technology. According to *Bentolila* and *Saint-Paul* (2003), total factor productivity has a negative effect on wage share, based on the 1972–1993 data of 12 OECD countries. The

### POSSIBLE REASONS FOR THE DECREASE IN WAGE SHARE, BASED ON THE SCIENTIFIC LITERATURE

Factor	Mechanism
Labour mobility between sectors	Since 1980, there was increasing labour mobility from the labour-intensive agricultural to the capital-intensive industrial sectors. The latter, however, allow a smaller wage share, reducing wage share as a combined effect.
Technology	According to this line of reasoning, capital productivity growth was higher than labour productivity growth, and technology is more and more capable of replacing the labour force. The decrease in the relative price of investment goods, often attributed to advances in information technology, induced firms to shift away from labour and toward capital when organising their production processes (Karabarbounis and Neiman, 2014).
Economic globalisation	Harrison (2002) argues that the globalisation of production and trade has a negative impact on wage share in developed and developing countries alike, which is especially true for Eastern Europe, since the countries of this region compete the most with the manufacturing sectors of the developing countries in terms of low labour costs.
	The liberalisation of capital mobility can undermine labour's bargaining power during the distribution of production incomes. Liberalised capital mobility, therefore, favours transnational capital over the less mobile labour force.
Welfare state	A larger government presence (measured by the government share of GDP) and government spending (measured by the budget deficit) affect the wage share positively (Lee – Jayadev, 2005). Accordingly, labour's bargaining position can be strengthened by more support for the unemployed and the functions of the welfare state. Furthermore, institutional characteristics can also contribute to the decrease of wage share.
Trade unions and political factors	Kristal (2010) published a detailed analysis of labour's bargaining power, which could be an alternative to or could supplement the traditional mainstream income-distribution theory.  Kristal (2010) models the bargaining power in three spheres: economic, political and global.

Source: collected by the authors

OECD's (2015) estimates suggest that total factor productivity growth and capital deepening (capital intensity: growth of per capita capital) accounted for most of the decline in wage share in the OECD countries between 1990 and 2007. Technology and productivity alone do not answer the question as to why wage shares differ in countries with a similar productivity growth path. *Stockhammer* (2013) and others are also of the opinion that technological changes are not the primary sources of reclining wage shares.

Globalisation in trade and finances is also an important driver. *Stockhammer's* (2013) argument for trade means that there is a negative correlation between wage share and openness in trade. *Harrison* (2002) also came to the same conclusion after analysing the data of 100 countries over 40 years. Apart from trade, the development of financial markets can also be regarded as part of globalisation and a possible factor eroding wage share. Due to deregulation, financial markets in the developed world have grown and helped to serve

the needs of equity holders and shareholders to maximise their profits. Corporate management first and foremost wants to maximise the value of share capital. The liberalisation of capital flows is also connected to the financial markets. Analyses show that it is also a globalisation mechanism which has reduced wage share (OECD, 2015). *Lee* and *Jayadev* (2005) point out in their analysis that the financial openness of a country significantly reduces wage share, however in their view it cannot be proven that financial openness would boost economic growth.

The state can intervene against the impacts of globalisation in several ways. These include labour market institutions, product market regulations, the ratio of domestic or state ownership or the size of the welfare state. Of the above, analyses particularly focus on the density and coverage of the trade union network, the regulation of the minimum wage, unemployment benefits and eligibilities, the size of severance payments and government consumption (OECD, 2015). Ball et al. (2013) focus on the government's role, saying that fiscal consolidation, implemented in a sample of 17 OECD countries between 1978 and 2009, increased income inequalities and decreased wage share. According to Stockhammer (2013) the size of the welfare state has a significant effect on wage share. These tools have been used increasingly by Hungary's economic policy from 2010 in order to counteract technological changes and globalisation processes.

Kristal (2010) provides a theoretical framework, which enables us to sum up the above processes from a new aspect. He claims that in the sixties and seventies, wages grew faster than national income, because trade unions were expanding fast and this was also the period of the stabilisation of the welfare state. This trend, however, reversed from the eighties, when the policies, also labelled neoliberal, eroded the importance of the trade unions, so

the system became decentralised and the size of government expenditures also shrank. Following the neoliberal economic policy approach, governments no longer tried to achieve full employment and started to focus on lower inflation and labour market flexibility when setting their goals (Kristal, 2010). The longterm equilibrium unemployment rate, which was considered to be natural, started to climb continuously, due to this shift in attitude. According to Harvey (2005) the neoliberal revolution, attributed to Thatcher and Reagan, has been gaining momentum since the 1980s, characterised by the equity holders' attempts to restore the pre-WW2 status of their bargaining position (Kristal, 2010).

From an economic point-of-view, this bargaining power means that the labour force can attempt to increase wage share through trade union activities and strikes. This correlation is clearly demonstrable by the multi-dimensional index, introduced in the study of Sigurt Vitols (2010). This is the EPI index (European Participation Index), which measures collective bargaining power and has a positive correlation with wage share in terms of European countries.4 The labour force can exert an influence on politics through political parties: the activities of social democratic parties and parties focusing on the interests of the labour force in general can increase wage share. This can be achieved with a policy package which redistributes incomes, provides social transfers, regulates work conditions and employee rights, secures unemployment benefits, sets the minimum wage, provides assistance or creates a favourable climate for collective actions. In addition, it provides free public services and goods, such as high-quality public education and health care, stabilises the size of the public sector and facilitates women's entry into the labour force (Kristal, 2010).

Finally, the bargaining position of employees can be projected to the global sector also, which is closely related to the previously mentioned process of globalisation.<sup>5</sup> The entry of less developed countries into the market has put pressure on the wages of lower qualified employees. It is clear that surplus growth, induced by globalisation on the one hand and the opening up of global economy, induced by the halt in average wage growth on the other, led to a decrease in wage share (Kristal, 2010). Profits could grow more dynamically compared to wages by diverting industrial production to developing countries, because the labour force in developed countries was forced to compete with that of developing countries (Corlett, 2016).6 Foreign-affiliated firms prefer flexible employment and a flexible labour market to reduce production costs (Kristal, 2010; Budros, 1997). In addition, they are also associated with national, cultural and linguistic divisions among co-workers that obscure the bases for collective action (Kristal, 2010; Brady - Wallace, 2000).

# THE NEW GOAL OF HUNGARY'S INCOME POLICY: TO INCREASE WAGE SHARE, INCLUDING NET WAGE SHARE

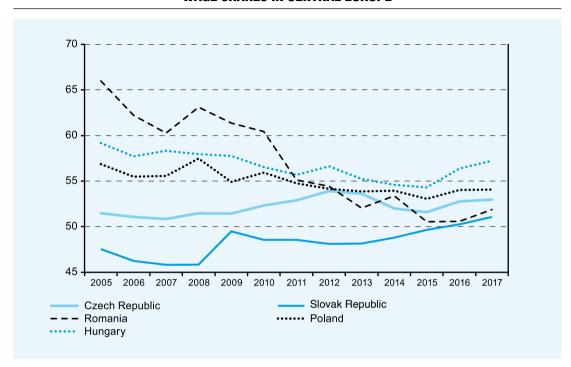
### New Directions and Model Shifts During the Crisis

After 2010, Hungary's economic policy aimed to increase not only real wages, but also wage share. Crisis management, applied until 2013, as well as the stabilisation process that lasted until 2016, created an opportunity for Hungary's economic policy to stop the negative trend by acknowledging the reasons that led to the wage share decrease (see Figure 1). Although this was due to the choice of values by the political governance, economic arguments also support this goal.<sup>7</sup>

The 2008 crisis was also coupled with the crisis of the globalisation process and that of the resulting pro-capital distribution policies, while it encouraged the emergence of such old/new theoretical and economic policy solutions as the post-Keynesian concept. This explains the history of wage share in Hungary and the shift in the current economic policy trend. As for the drivers of demand and economic growth, Lavoie and Stockhammer (2012) differentiate two types: wage-led and profit-led economic regimes.8 The profitled model should apply a pro-capital policy, because in these economies equity holders are characterised by a high propensity to consume and a larger proportion of profits is redistributed, while consumers tend to save instead of consume, therefore, growth can be supported by capital.9 In reality, domestic demand (consumption plus investments) is wage-led in every country, because consumption is much more sensitive to an increase in the profit share than investment is (Onaran, 2017).

According to the authors, however, international mainstream economic policies have taken a wrong direction from the eighties and wrongly assumed that most economies were capable of profit-led growth, because Europe's economy is characterised by the wageled growth model (Lavoie - Stockhammer, 2012). Consequently, instead of the trickledown economics or the "neoliberalism in theory" model, we saw the "neoliberalism in practice" scenario globally, where the support of capital does not lead to extensive income growth. What is more, because it overlooks the wage-led dynamics of economy, it leads to instability and stagnation, because it mainly relies on "external" growth mechanisms. This is how economic policies are forced to take debt-led or export-led growth paths (Lavoie Stockhammer, 2012). A more stable and balanced growth can be achieved through

#### **WAGE SHARES IN CENTRAL EUROPE**



Source: Ameco (wage share calculated with GDP at factor cost).

the framework of social Keynesianism, which introduces pro-labour policies after having a correct grasp of the wage-led operation of the economy.

The wrong diagnosis, according to which the economic "regime" is profit-led, stems from several factors, primarily from neglecting the temporal dimension and relying on analyses that were limited to short-run, cyclical relationships (Blecker, 2015). It is true that in the short term, profits (and wages to a smaller extent) are the catalysts of demand and also economic growth, but in the longer term wages are the main catalysts. The reason for this is that, provided every other factor remains unchanged, higher profits (and lower labour costs) have the strongest impact on investments and net export in the short term, while the consumption-boosting effect of a larger wage share is prolonged and works in the long term. That is why overly pro-profit policies are regarded as short-term, while prolabour policies are long-term strategies.

We might ask whether it is the growth of profit or wages that stimulates demands in an economy. Palley's (2017) research shows that there is no sharp contrast between profit-led and wage-led economies. Income distribution is able to influence the character of the economic "regime" to such an extent that a previously profit-led economy can be "tipped over" into a wage-led regime by the increase of the labour force's wage share. 10 A larger wage share has a positive impact on economic growth and capacity utilisation irrespective of the growth model, as opposed to the neoclassical Friedmanian view, which stipulates that a larger wage share leads to lower investment. The truth is that there is no clear positive relationship between profits and investments, and

the example of post-WW2 Western countries shows that a high wage share boosted profits and investments (Lansley – Reed, 2013). One of the few analyses on Central Europe was published by *Vujčić et al.* (2014), who claim that investments in Croatia were primarily determined by income from labour, which means that Croatia had a wage-led accumulation between 2000 and 2012. Their structural VAR approach also showed that contrary to the conclusions of the neoclassical labour market model, higher profit shares led to higher unemployment.

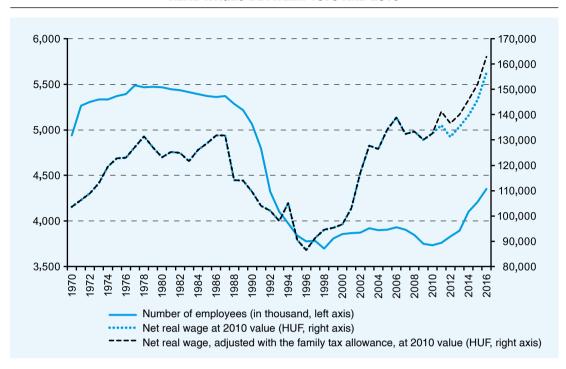
These are increasingly true for Central Eastern European countries (Disoska - Toshevska - Trpcevska, 2016). They pursued debt-led growth in the 2000s, keeping labour costs low.11 Larger public debt stimulated the convergence among EU countries (Petrakos et al. 2015). Since there was no sufficient consumption, the faulty pro-capital economic policy model required external help and turned into to debt-led growth. This policy resulted in the unprecedented rise of domestic total debt and external vulnerability by 2008, thrusting domestic public finances to near-bankruptcy. The crisis exacerbated the heritage of debt-led growth and its growth-impeding effects. GDP growth was demonstrably reduced by gross public debt levels in Central Europe in the period after the democratic changes (Časni et al., 2014; Bilan, 2015; Gál - Babos, 2014; Dinca-Dinca, 2015).12 All this, coupled with low real wages, led Hungary's economy to a dead-end path with no prospect of growth. Crisis management, launched in 2010, therefore took a different path and instead of introducing further labour cost cuts, it started to impose the economic costs of the crisis onto the previously favoured capital factor. This is how the transition to pro-labour economic policies started in order to mitigate the aftereffects of the economic crisis and prevent the emerging social crisis.

### SHIFT TO A PRO-LABOUR ECONOMIC POLICY

The most characteristic move of the prolabour policy was to help raise real wages in Hungary. From this aspect, the changes in net real wages illustrate well the rise of actually paid wages after 2010. Figure 2 clearly shows that in the past period of over 45 years, it was the regime change that was coupled with the most drastic net real wage decrease trend, lasting a decade. 13 During the debt-led growth of the 2000s, net real wage growth also slowed down and started to stagnate as early as three years before 2008, and there was no net real wage growth at all between 2005 and 2010. In 2010, however, wage growth returned and was characterised by the dynamic growth rate of the 1998-2000 period, but this time not to the detriment of the debt increase. The net real wage growth trend was mostly achieved under conservative governments, which may suggest that paradoxically these governments were more committed to pro-labour policies than the socialist governments in Hungary. Take note of the political slogan "work-fare economy". There was a mere 28 per cent increase in the net wage income of an average Hungarian employee between 1970 and 2010, while the GDP produced by an average employee tripled in the same period (György - Veress, 2016).

From 2017, wage share can not only stabilise, but also grow, because the main elements of the government's wage increase strategy have been in effect from January 2017. In November 2016, at the Consultative Forum of the Business Sector and the Government (VKF) Hungary's economic policy-makers came to an agreement with their social partners on a long-term wage policy. According to this agreement, real wages will be increased through two mechanisms: by raising the obligatory minimum wage and the guaranteed

#### **REAL WAGES BETWEEN 1970 AND 2016**



Source: Based on the database of the HCSO

minimum wage and also by decreasing the burden on employees, for example the contribution tax. This economic policy is prolabour, not because it cuts employee contributions, but because it ties it to wage increase as a criteria. Lowering personal income tax to 15 per cent also favours the labour factor and based on previous experiences, the wage increase in the public sector, applied continuously since 2010, has a spillover effect on the whole of the economy (Telegdy, 2013).<sup>14</sup> From a macro-economic aspect, this dynamic wage increase will result in an inflationary pressure, because of the weakened relationship between wages and inflation since the 2008 crisis. The elements of Hungary's pro-labour economic policy: lower personal income tax, the introduction of the family tax system and the reduction of employee contributions further undermined the previous economic relationship between inflation and wages (Soós – Várhegyi, 2015).

Wage share increase is a complex social, tax and income policy task, which requires more than just raising real wages (Stockhammer, 2015). Several indirect measures may be necessary in order to increase labour's bargaining power, of which a crucial tool could be to strengthen employee advocacy organisations (trade unions), which are powerful in Western Europe, but have lost their positions and coverage in Central Europe. 15 On the other hand, economic policy in itself could fulfil the role of trade unions, becoming powerful enough to integrate the economy and establish cooperation between social partners. This is increasingly necessary in Central Europe, because many of the factors that would positively influence wage share cannot be used during economic policy interventions. The scale of the integration in the European market, as well as trade and capital market liberalisation in general can be regarded as external, irreversible trends, regulated by international agreements (Doan – Wan, 2017). Albeit within limits, labour market institutions and regulations can be shaped with economic policy interventions and they do have a direct impact on wage share.

The pro-labour strategy of the Hungarian government can be considered a new, growthstimulating social contract between the labour force, the government and the business sector. The need for such a social contract after the crisis was suggested by Reed (2013) among others. In his view, the government should ensure that the minimum wage guarantees an amount that is necessary for the subsistence minimum. This goal can be achieved directly in the public sector and indirectly in the business sector: Reed (2013) suggests that companies paying higher wages should be given preference in public procurement. He also points out that wage differences within companies should be reviewed and regulated, because it is questionable whether the drastic rise in top management salaries in the last three decades was actually accompanied by better company performance. Increasing trade union coverage is an element of the new social contract, because it positively affects employee skills, innovation and productivity on a micro and macro level, while leading to a more successful macro-economic policy and reducing inequalities. Unlike Poland, Hungary in not characterised by a strong "workplace voice culture" and in an international comparison, trade unions here also lack "conflict-potential" (Körösényi et al., 2003). Reed (2013) also encourages that after consigning full employment to oblivion in the eighties, it should be reintroduced as an economic policy goal. This was a unique feature of Hungary's economic policy after 2010.16

Hungary's economic policy, therefore, attempts to replace "low wage social contracts". By "low wage social contract", we mean an economic system that not only assumes but also accepts that most wages will hardly grow. Rather than try to raise real wages, it prefers to help employees through other methods, such as providing government subsidies in cash or in kind. (Freedman - Lind, 2013). Although economic policy is characterised by a completely different global economy structure than in the period after WW2, a complete return to the high-wage and low-price model is not possible either in the US, as the subject of the authors' analysis, or in Hungary. The current global situation can be changed by well-designed demand-side economic policy interventions (Freedman - Lind, 2013).17

In the labour market, Hungary's economic policy introduced such a demand-side programme, public employment programmes and the Job Protection Action Plan to help the labour force that had lost its market power after the crisis. These programmes employed the surplus labour force after the crisis, thus making the labour market tighter, which was further enhanced by opening the door to the outflow of the labour force from the country from 2011. The number of people in public employment grew from 48 thousand in January 2013 to peak at 248 thousand in August 2015 and public employment expenditure peaked at HUF 340 billion (0.95 per cent of GDP) in 2016. Once the after-effects of the crisis were over and a labour shortage emerged, the economic policy was aimed at cutting back the public employment programme. Active labour market policy not only managed to mitigate the crisis, but also raised the number of employees to the 1992 level, while the 4.3 per cent unemployment in the period of November 2016-January 2017 was the lowest since the regime change.<sup>18</sup> Hungary's economic policy took on the government's ultimate post-Keynesian role of job creation, thus putting an end to the period of great moderation of the 2000s in the labour market also, which was thought be a success, but in reality it was a pro-capital era of growth without jobs, built on indebtedness (Pinkasz, 2012).

### IMPLEMENTING THE REDISTRIBUTION FROM THE CAPITAL FACTOR

During crisis management, there was a gradual contribution of adjustment costs to the capital factor. Sectoral surtaxes, levied on equity holders, were a sizeable addition to the budgetary coverage of public employment

programmes. They reached 2.23 per cent of GDP in 2013. The government primarily targeted oligopolistic sectors with these surtaxes, where the market power of the capital factor is significantly stronger than the labour force's market position (see Table 3).19 Although it is difficult to tax the capital factor because of its international mobility, which makes the capital's bargaining position traditionally better, the costs of the transition from the debt-led growth model to the wage-led model were imposed on the capital and the financial sector through these surtaxes. Among these surtaxes, the financial transaction duty became the most significant source of revenue (see Table 3). This also seemed as the right direction, because the primary beneficiary of

Table 3

### REVENUES FROM SURTAXES IN HUNGARY (AS A PERCENTAGE OF GDP)

Surtaxes	2010	2011	2012	2013	2014	2015	2016	2017
	percent							
Credit institution contribution	0.037	0.033	0.034	0.058	0.064	0.030	0.014	-
Energy providers' income tax	0.063	0.060	0.020	0.180	0.109	0.122	0.132	0.149
Energy tax	0.062	0.061	0.059	0.054	0.045	0.053	0.052	0.050
Surtax of financial institutions	0.674	0.663	0.297	0.463	0.462	0.440	0.209	0.178
Sectoral surtaxes	0.561	0.611	0.579	0.033	-0.003	0.001	0.000	0.000
Public utility tax	_	-	-	0.183	0.171	0.164	0.157	0.140
Advertisement tax	_	-	_	-	0.010	0.018	0.036	0.031
Telecommunications tax	_	-	0.043	0.156	0.174	0.161	0.152	0.146
Financial transaction duty	_	_	_	0.864	0.864	0.611	0.569	0.552
Insurance tax	_	-	-	0.087	0.089	0.088	0.092	0.084
Public health product tax	_	0.012	0.070	0.071	0.059	0.078	0.076	0.085
Accident tax	_	_	0.084	0.080	0.072	0.069	0.072	0.078
Tobacco industry tax	_	_	_	-	_	_	_	0.001
Environmental load charge	-	-	-	-	-	-	0.014	0.014
Total (as a percentage of GDP)	1.40	1.44	1.18	2.23	2.12	1.84	1.58	1.51

Source: own calculation based on budget data

the previous pro-capital, debt-led demandgrowth model was the capital factor itself, that is the local affiliates of large banks (Várhegyi, 2011).20 On the other hand - as previously seen - the biggest wage share drop for 55 years was witnessed in Ireland, where the pro-capital approach introduced the lowest corporate taxes, thus forcing those with labour income to bear the costs of the pro-capital policy (Joebges, 2017).21

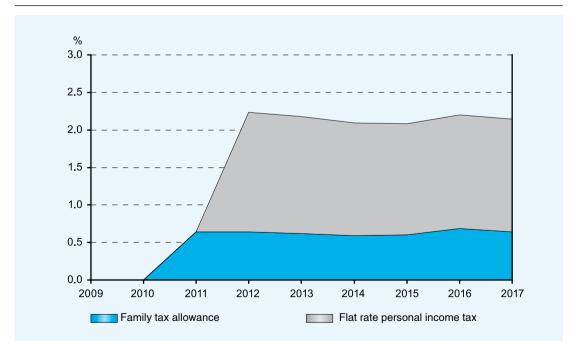
We saw the exact opposite in Hungary: the reduction in revenues from personal income taxes roughly matched the size of the extra revenues from surtaxes per annum. Figures 3 and 4 compare the main elements and sources of the pro-labour redistribution of income. The most important mechanism within the redistribution channels was the flat rate income tax, followed by the family tax allowance. Sectoral surtaxes in 2013 exceeded 2 per cent of GDP. This, coupled with the savings

on public debt interest payments, provided the "coverage" for the implementation of the pro-labour crisis management.

All of the above needs to be interpreted together with the trend of faster real wage growth: real wages per earner were up by 7.4 per cent in 2016 compared to the previous year, a growth unprecedented since 2004. Net real wages were up by 8.2 per cent in January-March 2017 compared to the same period of last year, thanks to such pro-labour economic policy elements as the previously mentioned 15 per cent obligatory minimum wage rise and 25 per cent guaranteed minimum wage rise, as well as the wage decompression in the budgetary sector.<sup>22</sup> These figures may forecast a dynamic rise in net real wage, because the economic and policy factors of the wage increase will continue to exist. Consequently, a historic surge in net real wages is expected between 2010 and 2018, which could be as

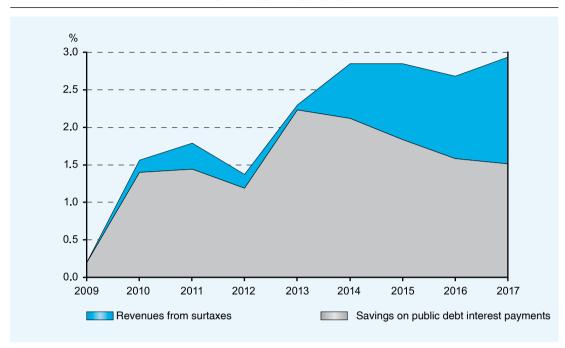
Figure 3

#### EXTRA INCOME FLOW TO MIDDLE CLASS FAMILIES IN HUNGARY



Source: own calculation based on budget data

### FINANCIAL SOURCES OF THE EXTRA INCOME FLOW TO MIDDLE CLASS FAMILIES AS A PERCENTAGE OF GDP



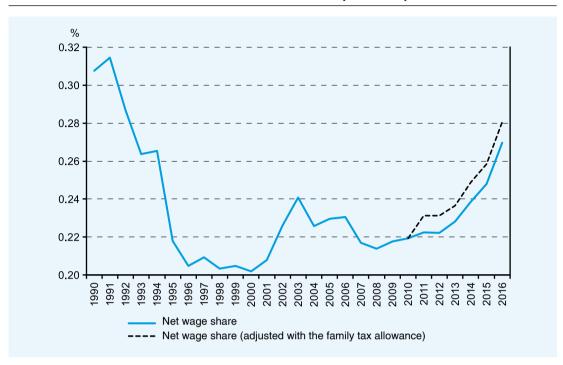
Source: own calculation based on budget data

much as 40 per cent, a notable increase compared to the 28 per cent growth between 1970 and 2010.

This means that there is a permanent halt in the decreasing trend in the wage share in Hungary, and since real wages can grow faster than the GDP in the medium term, labour share from the national income will be closer to the EU average by 2018. Reducing the personal income tax was a significant measure, which put a stop to wage share decrease in Hungary. Policies that favour the labour factor led to a tighter labour market and resulted in a clearly visible rise of the wage share (see Figure 1). Wage share grew by almost two percentage points between 2015 and 2016 and, according to Ameco's data, is expected to grow by three percentage points between 2015 and 2017 in the Visegrád countries, which is a significant change since 2010 even, bringing an end to the decade-long downward trend in Hungary. *Figure 5* shows another ratio, instead of the full compensation, it features the ratio of net real wage and per capita real GDP. It reveals that net wage share growth was even larger between 2010 and 2016, since it was 5.05 percentage points and 6.15 percentage points with the family tax allowances. The response to the crisis, therefore, implemented a significant direct redistribution in favour of the labour factor.

The wage-led growth model requires an environment where consumers can increase their spending.<sup>23</sup> Consumer confidence, however, was seriously undermined by the consequences of debt-led growth. Economic policy set out to ease the pressure on retail foreign currency mortgage holders with the final repayment and exchange rate cap schemes, and by the establishment of the





*Note:* definition of the net wage share in Figure 5: the ratio of real GDP per capita per month and net real wage per capita per month at 2010 prices. The size of the family tax allowance is also included in the adjusted variant.

Source: Own calculations based on HCSO and Eurostat data

National Asset Management Company. As a result of these policies "a surplus of the equivalent of 2–2.5% of GDP was retained by the households, especially by more affluent households. This average annual amount of HUF 300 billion surplus saved was used by middle class families to pay off their foreign currency debts", leading to a shift in the consumption trend in 2013 (Matolcsy, 2015).<sup>24</sup> Wage-led policy, therefore, not only aims to boost consumption, but also to help achieve it in the medium and long term without indebtedness (Stockhammer, 2015).

Hungary's economic policy aimed to fulfil two goals by its tax and employment policies, family support schemes, job protection and by reducing the burden on foreign currency mortgage holders. To increase disposable income, first of all savings, then consumption, while creating social security. It was achieved primarily by reducing foreign debt and replacing it with domestic debt, which, as previously mentioned, led to considerable savings in net interest (see Figure 3-4). The pro-labour model of social Keynesianism not only sets out to achieve higher incomes, but also social security, without which consumers would be hesitant to spend their income. The success of Hungary's crisis management and stabilisation, which increasingly relied on a pro-labour economic policy, is proven by the fact that between 2012 and 2016 Hungary's real GDP growth was higher than the euro area average or the EU average in every year.25

The implementation of a wage-led growth programme is opposed in many countries and

is only possible through several compromises. On the one hand, capital factor owners cannot be expected to understand the long-term macro-economic effects of wage share growth and support such an economic policy, because in most cases they have a much better bargaining position than wage earners. The international capital, therefore, is able to achieve that in some EU countries changes in wage levels stay well behind labour productivity growth. They use such disciplinary mechanisms as bond markets, which exert pressure on income and budget policies, as well as the mobility of international capital, which can influence minimum wage and the strength of trade unions (Onaran, 2017).

#### CONCLUSIONS

In the past period of over three decades, the share of labour - as a production factor - and equity holders in national income was uneven. Since the eighties, labour has been acquiring a shrinking slice of the "cake" representing aggregate income, despite the fact that its productivity has been increasing continuously. In the Visegrád countries, wage share falls behind that of the Western countries: In 2015, the wage share in the economy in total was 50-55 per cent and their 53 per cent average is far behind the EU's 63 per cent. In Hungary, the Ameco database shows an 8.6 percentage point drop between 1995 and 2015, projected for the whole of the economy, which is drastic, compared to the Central European average. Only Poland, Romania and Macedonia had a worst decrease among the countries of the region under review.

Although the range of economic policy tools is restricted by the global environment, Hungary's economic policy tried to find the way to increase its wage share. The first move of the pro-labour policy was to help raise real

wages in Hungary. The pro-labour strategy of the Hungarian government can be considered a new, growth-stimulating social contract between the labour force, the government and the business sector, and can be interpreted as a post-Keynesian concept from the economics perspective. The realisation of the state's ultimate role in job creation led to demand-side programmes in the labour market, leading to a tighter market and strengthening the position of the labour force, which had lost its market power.

The crisis management strategy resulted in a significant functional income redistribution. The specific surtaxes levied on oligopolistic markets and on the beneficiaries of previous decades contributed to the creation of public employment programmes, personal income tax cut and the implementation of family tax allowance programmes (and the employers' job protection action plan). Sectoral surtaxes in 2013 exceeded 2 per cent of GDP. This, coupled with the savings on public debt interest payments provided a stable "coverage" for the implementation of the pro-labour crisis management.

These policies have influenced wage shares, which has been reflected in the almost 2 percentage point increase of wage shares between 2015-2016 according to Eurostat and Ameco databases. If we consider the ratio of net wage share and average real GDP, then the increase was larger, 5.05 percentage points between 2010 and 2016 or 6.15 percentage points when the family tax allowances are also considered. We can only assume that the VKF agreement in November 2016 - as the basis for the medium-term wage share increase strategy - will also lead to further growth. Hungary's economic policy intends to replace the pre-2010 "social contract", which tied wages to a low level, with the "work-fare" economic model of pro-labour social Keynesianism.

#### **Notes**

- According to the general definition, wage share is the ratio of the wage bill and national income, that is the share of the former in the total produced income.
- <sup>2</sup> The general definitions of the measurement prescribe the measurement of part of the national income that is directed to the labour factor. For this, the ratio of the employees' labour income before taxation (including the employers' social security contributions) or the added value is aggregated and divided by the available national income or another aggregate (OECD, 2015). There may be several problems with the calculation, for example, who qualifies as an employee, should share options be included in labour income or how should the available income be measured. The added value of the public sector is also difficult to measure, therefore, in many cases only the corporate sector is analysed (OECD, 2015). The labour share is subject to a downward distortion, because income from self-employment is implicitly classified as capital income. There are various solutions to this problem (see Guerriero, 2012).

These measurement issues may determine the current level of the labour share, but do not influence the trends, that is the relative changes in the labour share (OECD, 2015; Guerriero, 2012). There are several alternative forms of the wage share variable, because different variables may be used as numerators and denominators. Furthermore, apart from the numerator and the denominator, the actual economic sector should also be selected carefully (Giovannoni, 2014).

<sup>3</sup> Ireland merits special attention, because their crisis management strategy was based on the preference of the capital factor as opposed to Hungary's model, which placed labour at the forefront. In Ireland, which aspires to become an international tax haven, foreign companies dominate economic activity,

- which also leads to unfavourable effects: per capita GNI is 15 percentage points lower than per capita GDP, which is unique among developed countries, and the two indicators project highly different scenarios for the recovery from the crisis (Joebges, 2017). Simultaneously with the 34.5 percentage point drop of the wage share between 1960 and 2016, GNI as a share of GDP has gone down from levels above 100% in the 1970s to 82% in 2016 in Ireland. Joebges (2017) points out that the decrease in Irish unit wage costs has not been transmitted to either export prices or domestic price levels; instead they increased corporate profits.
- The EPI index measures labour's participation and representation in the highest-level company forums (board of directors), as well as on the level of production units and sectors.
- <sup>5</sup> Collective actions within the sectors should also be noted. The assertion of interests on individual company level is becoming more prevalent with the decentralisation of trade unions. Wider sectoral representation is rare, hindered by the competition between employee organisations within the sectors (Kristal, 2010).
- <sup>6</sup> The famous 'Elephant Curve' by *Branko Milanovic* shows that between 1988 and 2008, average growth in per capita household income was very uneven: incomes grew dynamically, with up to 80 per cent until the 50th percentile of incomes, which included people in developing Asian countries, while there has been no real income growth among the lower middle class of the developed world for twenty years.
- Functional income distribution also reflects the structure of the economy: From 2011, wage share in China started to grow drastically, which is connected to the restructuring of the economy. China's economic policy aims to make services and

consumption be the drivers of economic demand instead of industry and the investments concentrated here, in order to free itself from the trap of middleincome countries. Growing wage share facilitates higher consumption, so it is closely connected to economic modernisation. Chinese wages as a share of added value grew from the lowest figure of 47 per cent in 2011 back to above 50 per cent by 2013. Although this cannot compensate for the distribution impacts of decades of uneven growth, it still represents a trend shift. Similarly to Hungary, this trend shift is also facilitated by labour market dynamics in China, because the size of the working age population has been shrinking from 2014, while the boost in the service sector has a much larger labour demand than the heavy industry (Huang -Lardy, 2016).

- <sup>8</sup> In the wage-led growth model, wage share growth has an expansive effect on economic growth, while in profit-led economies it is the growth of the capital ratio that has a considerably expansive effect. When economic policy not only recognises, but also supports wage-led economic policies (aggregated demand) and their mechanisms, we can speak of a wage-led (pro-labour) growth strategy. In the case of debt-led growth, economic policy relies on such "external" economic stimulants as the financial markets. This way economic growth is largely built on indebtedness and the continuous increase of public debt is required to maintain the growth path.
- Several analyses, including *Lansley* and *Reed* (2013) who evaluated British data from 1948 to 2011, found a strong, statistically significant positive correlation between wage share and GDP growth.
- <sup>10</sup> According to a study by Carrera and Rodríguez (2016), a policy that leads to a higher wage share is associated with a lower current account balance, due to increased consumption. It suggests that the wage share should be increased primarily in countries with a current account surplus. Import growth can help other trade partners improve their balance, so

- they can also start implementing their wage share boosting policies in a "second stage" (Carrera Rodríguez, 2016).
- 11 Liberalisation and deregulation caused a serious shock to the economy. Consequently, the loss of markets, triggered by the break-up of the Comecon, continued. In Hungary, equity holders, who acquired the former state assets, responded to the loss of markets by squeezing down wages, so trade liberalisation here may have gradually contributed to a smaller wage share. The OECD' wage share index for the corporate sector in Hungary dropped from 76.4 per cent in 1992 to 58.2 per cent in 2010 (stats.oecd.org: Unit Labour Costs Annual Indicators: Labour Income Share Ratios).
- <sup>12</sup> Several studies came to the conclusion that the over 50 per cent total debt had a negative effect on GDP growth in the Central European region.
- <sup>13</sup> Net real wages already started to decline before the regime change, which can be regarded as a cause just as much as an effect. This proves the unsustainability of the debt-led growth of the "goulash communism".
- <sup>14</sup> According to Telegdy's (2013) analysis, the significant wage increase in the public sector in 2001-2002 resulted in "public sector employee wages shooting up from an average 10.5 per cent disadvantage to a 12.5 per cent advantage compared with corporate sector wages". The spillover effect was notable, because a "10 per cent higher public sector presence in the given labour market segment generated a 1.5 per cent wage increase" in the business sector. Notably, "the spillover effect is high in the case of corporate employees who have relatively low wages, who work in positions where the ratio of public sector employees is high, in the service industries and whenever they were employed after a large wage increase". Consequently, public sector wage increases can be effective in raising the wage share of business sector employees with low wages.

- <sup>15</sup> The European Trade Union Institute's EPI index places Hungary in the bottom five in the EU in terms of trade union coverage. (https://www. etui.org/Topics/Worker-Participation/European-Participation-Index-EPI)
- <sup>16</sup> The wage-led growth model can also be termed as a model based on full employment. It generates dynamic wage increase, which then drives demand, leading to long-term consumption growth. Consumption growth boosts investments and productivity. This model can lead to a stable or growing wage share (Stockhammer, 2015).
- <sup>17</sup> The authors present the emergence of the "low wage social contracts". Within this contract, economic policy uses low prices to try and achieve consumer welfare by liberalising international trade. Cheap imports and low wages keep prices low while maintaining market conditions, which is stimulated by tax allowances, introduced by the government. This equilibrium also explains the observation, according to which productivity growth is not followed by real wage growth. This low-wage, pro-capital model leads to insufficient demand, forcing the government to choose indebtedness to boost the economy (Freedman Lind, 2013).
- <sup>18</sup> Hungarian Central Statistical Office (First Release Unemployment Rate, 27 February 2017).
- <sup>19</sup> According to the scientific literature, the electric energy market is such an oligopolistic market (Závecz, 2015).
- <sup>20</sup> Between 2001 and 2005, ROA (net profit/total assets) was continuously the highest in Hungary among the Visegrád countries and was twice as high as in Slovenia. Várhegyi (2011) points out that before the crisis, price competition among the banks

- gradually morphed into a risk-based competition in Central Europe. Therefore "banks increased their share in the retail market by involving increasingly more risky clients and transactions (with a low income or inadequate collateral) (e.g. foreign currency based loans)". The boom in loans increased the country's external vulnerability.
- The basic element of the wage-led growth model is the reform of the financial sector. This was achieved by Hungary's economic policy in order to mitigate the possibility and impacts of future financial crises. A larger portion of surtaxes was levied on the financial sector, in line with Stockhammer's suggestion, who proposes, among others, to increase the financial transaction tax with the aim to stabilise the financial sector and curb speculation. He also finds it necessary to introduce restrictions on bank bonuses, regulate the shadow banking industry, reinforce the notfor profit segment within the banking industry and encourage a more long-term view in corporate governance (Stockhammer, 2015).
- <sup>22</sup> Hungarian Central Statistical Office (First Release Earnings 20 March 2017)
- <sup>23</sup> Propensity to consume can be increased when consumers feel financially secure: for example thanks to the social safety net, public employment or programmes that support families and the elderly. This is when households reduce their precautionary savings and spend more on consumption (Lavoie Stockhammer, 2012).
- <sup>24</sup> Cutting utility costs was also a significant boost for consumption: a total of 20 per cent cut in utility costs was achieved by November 2013 (György, 2016).
- <sup>25</sup> See Eurostat (variable: tec00115).

#### LITERATURE

Ball, L. – Furceri, D. – Leigh, D. – Loungani, P. (2013): The distributional effects of fiscal consolidation. IMF Working Paper, Washington. Online: https://www.imf.org/external/pubs/ft/wp/2013/wp13151.pdf

Bentolila, S. – Saint-Paul, G. (2003): Explaining Movements in the Labor Share. Contributions to Macroeconomics. 3(1). pp. 1103–1136

BILAN, I. (2015): Economic Consequences Of Public Debt. The Case Of Central And Eastern European Countries. Centre for European Studies, Alexandru Ioan Cuza University, EURINT.

BLECKER, R. A. (2015): Wage-led versus profit-led demand regimes: The long and the short of it. American University, Washington. https://www.american.edu/cas/economics/research/upload/2015–05.pdf

Brady, D. – Wallace, M. (2000): Spatialization, Foreign Direct Investment, and Labor Outcomes in the American States, 1978–1996. Social Forces 79., pp. 67–99

Budros, A. (1997): The New Capitalism and Organizational Rationality: The Adoption of Downsizing Programs, 1979–1994. Social Forces 76. pp. 229–49

Carrera, J. – Rodríguez, E. (2016): Wage share and the current account. How income policies transmit to the rest of the world. http://www.siecon.org/online/wp-content/uploads/2016/09/CARRERA.pdf

ČASNI, Č. A. et al. (2014): Public debt and growth: evidence from Central, Eastern and Southeastern European countries. Zb. rad. Ekon. fak. Rij. 32(1). pp. 35–51

CORLETT, ADAM (2016): Examining an elephant. Globalisation and the lower middle class of the rich world. *Resolution Foundation*.

DISOSKA, E. M. – TOSHEVSKA-TRPCEVSKA, K. (2016): Debt or Wage-led Growth: the European Integration. *Journal of Economic Integration*. 31(2). pp. 326–352

DOAN, H.T.T. – WAN, G. (2017): Globalization and the Labor Share in National Income. *ADBI Working Paper* Series No. 639.

ESTRADA, A. – VALDEOLIVAS, E. (2012): The Fall of Labor Income Share in Advanced Economies. *Banco de Espana*. No. 1209.

Freedman, J. – Lind, M. (2013): Beyond the Low Wage Social Contract. Economic Growth Program and Next Social Contract Initiative. *New America Foundation*.

Gál, Zs. – Babos, P. (2014): Avoiding the high debt – low growth trap: lessons for the new member states. *Business Systems and Economics*. 4(2). pp. 154–167

GIOVANNONI, O. (2014): What Do We Know About the Labor Share and the Profit Share? Part III: Measures and Structural Factors. Working Paper No. 805. Levy Economics Institute of Bard College. Online: http://www.levyinstitute.org/pubs/wp\_805.pdf

GUERRIERO, M. (2012): The Labour Share of Income around the World. Evidence from a Panel Dataset. Institute for Development Policy and Management (IDPM). Development Economics and Public Policy Working Paper Series. 32. Online: http://piketty.pse.ens.fr/files/Guerriero2012.pdf

György, L. (2016): "Tulajdonosból" alkalmazott, avagy a magyar átlagfoglalkoztatott átalakulása számokban 1970–2010 között. (From "Owner" to Employee. Transition of an Average Hungarian Employee in Numbers between 1970–2010) Analysis. http://www.uti.bme.hu/tantargyak?p\_p\_id=TantargyLista\_WAR\_bmeuti&p\_p\_lifecycle=2&p\_p\_state=normal&p\_p\_

mode=view&p\_p\_resource\_id=download&p\_p\_cacheability=cacheLevelPage&\_TantargyLista\_WAR\_bmeuti\_id=5791

György, L. – Veress, J. (2016): 2010 utáni magyar gazdaságpolitikai modell (The Hungarian Economic Policy Model after 2010.) *Public Finance Quarterly* 2016/3, pp. 367–388

Harrison, A. (2002): Has globalization eroded labor's share? Some cross-country evidence, Mimeo, UC Berkeley. Online: http://www.iadb.org/res/publications/pubfiles/pubS-FDI-9.pdf

Harvey, D. (2005): A Brief History of Neoliberalism, Oxford University Press, Oxford.

Huang, Z. – Lardy, N. R. (2016): China's Rebalance Reflected in Rising Wage Share of GDP. Peterson Institute for International Economics Blog. 13 October

JOEBGES, H. (2017): Crisis recovery in a country with a high presence of foreign owned companies – The case of Ireland. *Working Paper* Nr. 175. Hans-Böckler-Stiftung.

Karabarbounis L. – Neiman, B. (2014): The global decline of the labor share. *The Quarterly Journal of Economics*. 129(1). pp. 61–103

KÖRÖSÉNYI, A. et al. (2003): A magyar politikai rendszer. (The Hungarian Political System) Osiris Publishing House, Budapest.

Kristal, T. (2010): Good Times, Bad Times: Postwar Labor's Share of National Income in Capitalist Democracies. *American Sociological Review*. 75(5). pp. 729–763

Lansley, S. – Reed, H. (2013): How to Boost the Wage Share. Trade Union Congress. https://www.tuc.org.uk/sites/default/files/tucfiles/How%20to%20Boost%20the%20Wage%20Share.pdf

LAVOIE, M. – STOCKHAMMER, E. (2012): Wage-led growth: concept, theories and policies. *Conditions of Work and Employment Branch*. ILO, Geneva.

LEE, K. – JAYADEV, A. (2005): Capital Account Liberalization, Growth and the Labor Share of Income: Reviewing and Extending the Cross-country Evidence. In: G. Epstein (ed.): Capital Flight and Capital Controls in Developing Countries. Cheltenham, Edward Elgar. pp. 1–50

MATOLCSY, GY. (2015): *Egyensúly és növekedés* (Equilibrium and Growth), Kairosz Kiadó Kft., Budapest.

Onaran, Ö. (2017): Wage- versus profit-led growth in the context of globalization and public spending: the political aspects of wage-led recovery. *Review of Keynesian Economics*. 4(4). pp. 458–474

Palley, T. I. (2017): Wage – vs. profit-led growth: the role of the distribution of wages in determining regime character. *Cambridge Journal of Economics*. 41(1). pp. 49–61

PETRAKOS. G. et al. (2015): Debt-led convergence in the European Union. *Discussion Paper Series*. 21(1). pp. 1–18

PINKASZ, A. (2012): A jövedelemegyenlőtlenség mint a gazdasági válság eredete (Income Inequality as the Origin of the Economic Crisis) *Fordulat.* 2012/1. pp. 11–27

RODRIGUEZ, F. – JAYADEV, A. (2010): The Declining Labor Share of Income. *United Nations Development Programme, Human Development Reports, Research Paper* 36

Soós, G. D. – Várhegyi, J. (2015): Árak és bérek – okok egy megváltozott gazdasági kapcsolat hátterében (Prices and Wages – the Underlying Reasons of a Shift in an Economic Relationship) National Bank of Hungary. https://www.mnb.hu/letoltes/soos-gabor-danielvarhegyi-judit-arak-es-berek-okok-egy-megvaltozott-gazdasagi-kapcsolat-hattereben.pdf

STOCKHAMMER, E. (2013): Why have wage shares fallen? A panel analysis of the determinants of functional income distribution. *ILO*, *Conditions of Work and Employment Series 35* 

STOCKHAMMER, E. (2015): Wage-led Growth. Kingston University London, Friedrich Ebert Stiftung. https://www.socialeurope.eu/wp-content/uploads/2015/04/RE5-Stockhammer.pdf

Várhegyi, É. (2016): A magyar bankszektor szabályozása és versenyhelyzete a válságban (Regulation and Competitive Position of the Hungarian Banking Sector During the Crisis) In: Valentiny, P. et al (ed.): Verseny és szabályozás 2016 (Competition and Regulation) MTA KRTK Közgazdaság-tudományi Intézet ((Hungarian Academy of Sciences, Institute of Economics). Verseny és Szabályozás, 2016.

VITOLS, S. (2010): The European Participation Index (EPI): A Tool for Cross-National Quantitative Comparison. Background paper. Online: http://www.worker-participation.eu/content/download/4282/58932/file/EPI-background-paper.pdf

Vujčić, B. et al. (2014): Functional distribution of income and economic activity in Croatia: Post-Keynesian approach. Ekon. fak. Rij. 32(1). pp. 53–73

Závecz, Á. (2015): Az iparági sajátosságok és szabályozás hatásai a villamosenergia-hálózati szolgáltatás áraira és a beruházási döntésekre (Effects of Industrial Characteristics and Regulation on the Price of Electric Power System Services and Capital Expenditure Decisions) *PhD Dissertation*. University of Kaposvár

Bank for International Settlements (2006): 76th Annual Report, Basel.

European Commission (2007): The labour income share in the European Union. In: Directorate-General for Employment, Social Affairs and Equal Opportunities; Employment Analysis Unit (ed.): Employment in Europe 2007. pp. 237–72

ILO (2011): Global Wage Report 2010/11: Wage policies in times of crisis, Geneva.

ILO (2012): Global Wage Report 2012/13: Wages and equitable growth, Geneva.

International Monetary Fund (2007): The globalization of labor. In: Kumar, Archana (ed.): World Economic Outlook, April 2007: Spillovers and cycles in the world economy (Washington, DC). pp. 161–92

OECD (2015): The Labour Share in G20 Economies. International Labour Organization. Organisation for Economic Co-operation and Development with contributions from International Monetary Fund and World Bank Group. Report prepared for the G20 Employment Working Group Antalya, Turkey, 26–27 February.

#### STATISTICAL SOURCES

Ameco-database:

Adjusted wage share at factor cost (ALCD2).

European Trade Union Institute:

EPI index (https://www.etui.org/Topics/Worker-Participation/European-Participation-Index-EPI).

Eurostat:

Compensation of employees (tec00013). Real GDP growth rate – volume (tec00115).

Hungarian Central Statistical Office:

A közfoglalkoztatás keretében foglalkoztatottak munkaügyi adatai (Labour market data of people in public employment) (2.1.60).

First Release – Unemployment Rate, 27 February 2017

First Release - Earnings 20 March 2017

OECD:

Unit Labour Costs – Annual Indicators: Labour Income Share Ratios.