

Automation, digital revolution and capital concentration: The elephant in the room – A race for the machine?

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EMPLOYEE FINANCIAL PARTICIPATION IN THE AGE OF DIGITALISATION

Chair: Thomas Händel

Automation digital revolution and capital concentration: The elephant in the room – A race for the machine?

Paper prepared for the public hearing of the Committee on Employment and Social Affairs of the European Parliament on “Employee financial participation in the age of digitalisation”

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Abstract

Since the industrial revolution began, productive capital in the form of machines, structures and systems has assumed an ever more dominant role in the industrial process as compared to labour. Consequently, the owners of these non-human productive assets receive a growing share of market-sourced income, with an ever-smaller proportion going to the owners of human labour power. The shift between factors of production in favour of capital is exacerbated by technological progress and its embodiment in automation. Recent academic work on labour’s declining income share has emphasized the role of capital accumulation and capital-augmenting technical change, which is biased against those less skilled and less educated. This is consistent with the findings of French economist Thomas Piketty, namely, that wealth becomes increasingly concentrated when the rate of return on capital is consistently higher than economic growth.

We observe a peculiar disconnect between this phenomenon and public discussion and interpretation of its social and economic effects. Economic reports, editorial comment, corporate strategy, labour policy, legislative response, etc., assume that technological change does not alter fundamental economic relationships and assumptions.

- On the one hand, the discussion of automation is focused almost entirely on its probable effects on labour employment, while the micro- and macro-distributive effects of this shift in productive roles are barely mentioned.
- On the other hand, the discussion of rising inequality is focused almost entirely on issues of distributive justice; the shift from labour to capital as an income sources and its active role in concentrating wealth is ignored.

Thus in a labour-focused environment the distributive effects of automation which are a prime cause of expanding capital concentration has become the “elephant in the room” – an enormously portentous subject which is almost entirely omitted from public discussion.

Interestingly, this issue was already raised on both sides of the iron curtain in the aftermath of World War II. *Stanisław Lem*, the Polish writer and futurist who was greatly interested in cybernetics and robotics, anticipated these problems in Poland as early as 1954. Shortly thereafter, in 1958, the American corporate lawyer and merchant banker *Louis O. Kelso* presented an analysis of the fundamental causes of this phenomenon and a proposal for dealing with its economic effects in his book “The Capitalist Manifesto”. His solution to the problem was to broaden the ownership of productive capital through democratizing access to capital credit, the key to acquiring productive property, in other words the non-human things that produce wealth in an industrial society. To accomplish this, Kelso invented the prototype of the leveraged buy-out and applied it to different constituencies — Employee Stock Ownership Plans (ESOPs) for corporate employees, Consumer Stock Ownership Plans (CSOPs) for consumers and General Stock Ownership Plans (GSOPs) for citizens in general.¹

In June of 2014, Neelie Kroes, Vice President of the European Commission, announcing the launch of the world’s largest civilian research and innovation programme in robotics, asserted: “*Europe needs to be a producer and not merely a consumer of robots*”. Kelso would have added his own postulate, urging for a “race for the machine” to enable citizens to become owners of the robots which both serve and replace their labour. Against this background and in light of the decline of the wage share, this paper investigates fundamental questions of ownership, automation, income distribution and capital concentration.

¹ The three plans are variations of a capital credit device for utilizing corporate credit to simultaneously finance both corporate growth and asset acquisition. The plan enables employees (or consumers or citizens respectively) to buy stock in a corporation and to pay for it out of that stock’s future earnings. As of 2014 there were about 10,000 ESOPs with more than 14.5 million employee participants in the U.S.

1. Background

In an age of globalization and technological progress the acceleration of digital information and communication technologies (ICT) has led and continues to lead to social changes which shake the foundations of the world of work, dubbed “industrial revolution 4.0”.² This process mainly characterised by automation, robotics and artificial intelligence impacts not only national law and economic systems but also traditional institutions of social existence and such the foundations of our modern societies as such, in Europe as well as across the world.

In a recent draft report of the Committee on Legal Affairs on Civil Law Rules on Robotics, triggered by the current discussion on robots, automation and artificial intelligence, the European Parliament raises questions about “the future of employment and the viability of social security systems” as well as “the potential for increased inequality in the distribution of wealth and influence”.³ Property ownership is indeed the distributional mechanism of the free market which awards income from production to the producers according to their respective productive inputs: to land owners, the earnings of land; to workers, the earnings of labour; to capital owners, the earnings of capital. Over time productive capital – machines, structures and systems – has assumed an ever more dominant role in the industrial production process. As a result, the owners of these productive assets – now including robots – receive a growing share of market-sourced income, with an ever-smaller proportion going to the owners of human labour power.

Since money spent on goods and services is what keeps an industrial society running, the steady erosion of labour earnings is a problem that ultimately threatens the well being of us all. But automation is already affecting our social security systems. According to estimates of IG Metall, one of Germany’s largest trade unions, the average cost of an industrial working hour is 40 Euros; of this cost around a third is contributed to social security; the cost of a robot working hour comes to around six Euros, including the costs of maintenance and repair. Proposals to compensate for the lost social security contributions by introducing a “robot” or “machine tax” have been made since the 1970s.⁴ In the wake of the financial crisis, new questions have arisen about its repercussions on the welfare state, e.g., why has median income stopped rising and why, as a consequence, have our economies and societies seemed to have gradually become more unequal? One widely discussed explanation is the thesis of French economist Thomas Piketty, namely that wealth becomes increasingly concentrated as the rate of return on capital is consistently higher than economic growth.⁵ In short, as capital owners accumulate ever more productive assets thereby increasing their capital income, workers receive an ever-shrinking share of labour income.

2. Three decades of decline of the labour share – Where are we today?

The shift between factors of production in favour of capital is exacerbated by technological progress and its embodiment in automation. The “race against the machine” is now back in the headlines⁶, a competition perceived to threaten labour market equilibrium and – some pessimistic voices⁷ fear – the future of labour employment.

It appears that digital ICT have altered the very nature of technological change; the most recent advances are incorporated in machines and devices whose main purpose is to replace human participation entirely thereby eliminating labour jobs.⁸ Digital innovation is a phe-

² See, e.g., <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond>.

³ Draft report with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)).

⁴ Most recently related proposals were discussed in the French, British and German parliament according to the German Weekly Die Zeit; see “Ab zum Finanzamt Kollege”, No 31 of 21 July 2016.

⁵ Piketty, T., “Capital in the 21st Century”, 2013.

⁶ Financial Times, 3 Feb. 2013, *Edward Luce*, “Obama must face the rise of the robots”.

⁷ Rifkin, J., „The end of work“, 2nd edition, 2004.

⁸ Brynjolfsson, E. / McAfee, A. “Race against the machine” 2011.

nomenon both broad and deep; its economic implications are profound. Many of these are positive, i.e., productivity increases, price reductions and a growing economic pie. There are important distributive effects, however, which are unfavourable – above all those whose skills computers have mastered and who now sees his wages and opportunities shrinking. According to estimates from a 2013 study by Oxford economists Frey and Osborne⁹, in the U.S. labour market 47 per cent of employment could potentially be automated in the next two decades. If this process were to continue unchecked, most workers, particularly the least educated who are unable to adapt quickly, would find themselves in a competition with machines, their relative positions ever worse.

Indeed, recent academic studies on the decline of labour's income share (see figure 1) point to the role of capital accumulation and capital-augmenting technical change (see, e.g., Bentolila and Saint-Paul, 2003; Arpaia, et al., 2009; Driver and Muñoz-Bugarin, 2010; Raurich, et al., 2012). In the past three decades, technological change embodied in ICT capital has been biased against the less educated¹⁰, with disembodied technical change biased towards high-skilled labour.¹¹ However, unlike past automation the changes that ICT bring along affect also workers with higher education and skills.¹² Moreover, the shift of income away from labour – and, in particular, away from low-wage workers – towards capital and top earners appears to have a negative impact on aggregate demand; workers receiving below-average pay tend to have a higher propensity to consume than top earners and capitalists.¹³

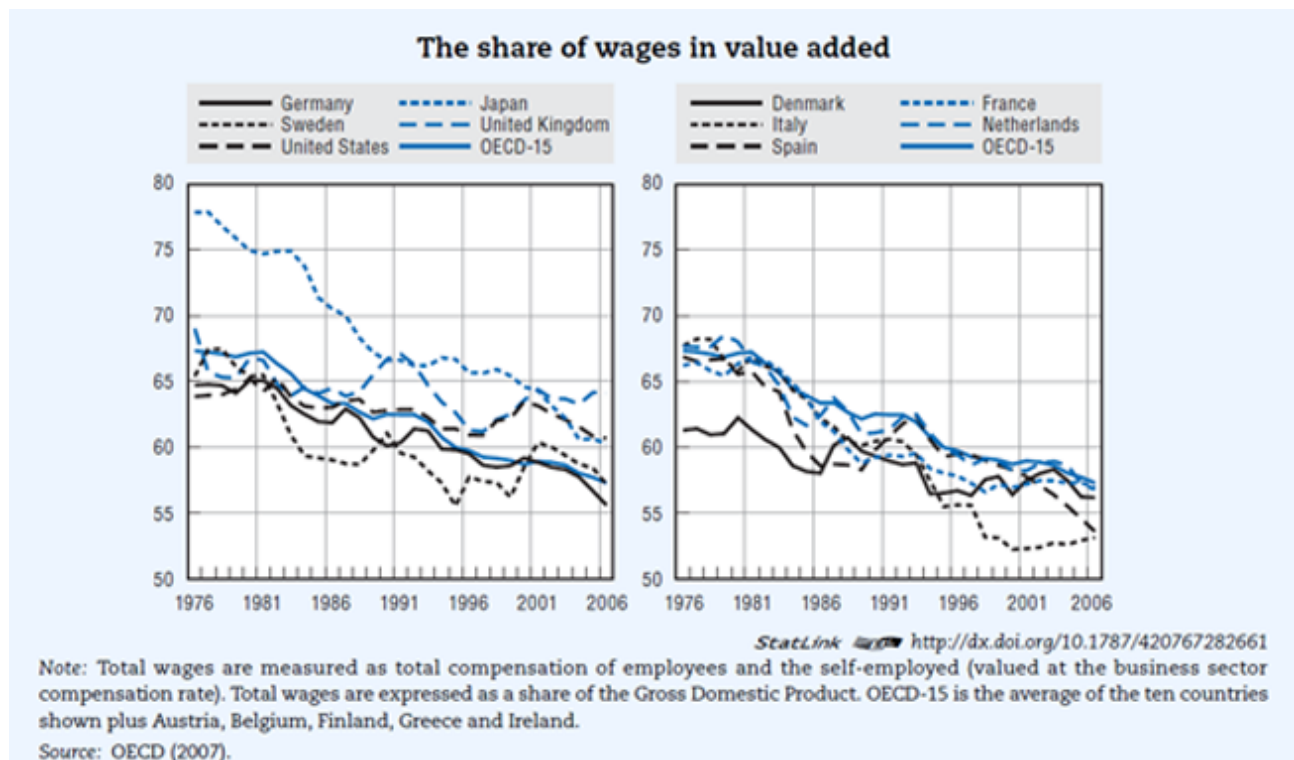


Figure 1: Dynamics of the wage share between 1976 and 2006 (Source OECD 2007)

3. “Re-shoring” – bringing back the jobs?

This development has unanticipated implications with respect to the (re-)location of production sites in the context of globalization. Large international ICT companies, e.g., Apple, GE,

⁹ Frey, B. / Osborne, M. „The Future of Employment: How Susceptible Are Jobs to Computerisation?“, 2013.

¹⁰ See IAB-Kurzbericht 24/2015, p. 6 and Evans-Pritchard, Ambrose „Robots may shatter the global economic order within a decade“, the Telegraph 5 Nov. 2015.

¹¹ See Bassanini, A. / Manfredi, T. “Capital's Grabbing Hand? A Cross-Country / Cross-Industry Analysis of the Decline of the Labour Share”, 2012.

¹² See Freeman, Richard, “Who owns the robots rules the world“, IZA World of Labor 2015: 5.

¹³ Belke, A. / Dreger, C. / Ochmann, R. “Do wealthier households save more?“, DIW discussion paper, 2012.

IBM, General Motors, are moving some of their production facilities back to the United States. Patriotic sentiments or political considerations may have a role in this development, but the fundamental drivers behind decisions to "repatriate" jobs are economic.¹⁴ First, the labour portion of the cost of manufacturing – in particular in the ICT sector – has become so small that it is no longer a significant factor.¹⁵ Second, the cost of transport outweighs the remaining advantages of low-priced labour, making production in countries with higher priced labour profitable once again. Third, the costs of robots are (almost) the same everywhere.¹⁶ Such "re-shoring" is expected to boost employment, if at all, mainly for high-quality, well-educated workers necessary to install and maintain machines and robots.

However, it should be stressed that substituting machine input for labour input is not deliberately intended to eliminate jobs. The purpose is to reduce costs. Less efficient machines are replaced by more efficient ones, production procedures are redesigned, and new materials replace older ones – all for the purpose of lowering the costs of production. The catchphrase "*man vs. machine*" is misleading in that it assumes that human labour is still the main source of productive power. That is no longer true. Labour is a cost. Manufacture is driven by the need to reduce costs, in order to make products cheaper and more affordable, thereby increasing sales and profits. The consequences of this central purpose on the free market, employment, purchasing power, income distribution, etc. – are secondary effects which have consequences of their own. But it is wrong to assume that these consequences are intended. Cost is the target.

Europe is also a contestant in the race for the machine. In June of 2014, the [European Commission](#) and [180 companies and research organisations](#) (under the umbrella of [euRobotics](#)) launched the world's largest civilian research and innovation programme in robotics.¹⁷ Although the programme promises, "to create over 240,000 jobs in Europe, and increase Europe's share of the global market to 42%," it also stresses as one of its main goals the enabling of "companies to continue manufacturing in Europe, where they might otherwise move operations to lower-cost countries".

4. The elephant in the room

What deserves further investigation is the peculiar disconnect between the phenomena just described and public discussion and interpretation of their social and economic effects as manifested in economic studies, government reports, journalists' commentary, changes in corporate strategy, labour policy, legislation, etc.

- On the one hand, the discussion of automation is focused almost entirely on its probable effects on labour employment while the micro- and macro-distributive effects of this shift in productive roles are barely mentioned.
- On the other hand, the discussion of rising inequality is focused almost entirely on issues of distributive justice; the shift from labour to capital as an income source and its active role in concentrating wealth is ignored.

Thus in a labour-focused environment the distributive effects of automation which are a prime cause of expanding capital concentration is the "elephant in the room" – an enormously portentous subject almost entirely omitted from public discussion.¹⁸

¹⁴ "Outsourcing and offshoring", Economist Special report, January 2013.

¹⁵ „Welcome home - The outsourcing of jobs to faraway places is on the wane. But this will not solve the West's employment woes“, The Economist, 19 Jan. 2013.

¹⁶ *Rethink Robotics'* trainable low-cost robot "Baxter" with a life time of three years (65,000 hours) already today costs only 22,000 USD bringing down the cost of a worker's hour to 3.4 USD; see CBS 60 Minutes "Are robots hurting job growth? 13 Jan. 2013 at: <http://www.cbsnews.com/video/watch/?id=50138922n>.

¹⁷ European Commission Press release (IP/14/619), Brussels, 3 June 2014 „EU launches world's largest civilian robotics programme – 240,000 new jobs expected“.

¹⁸ An exception is *Richard Freeman* who argues in "Who owns the robots rules the world", IZA World of Labor 2015: 5 that "[...] capital is a substantial contributor to inequality [...] in labor incomes because highly paid

This omission is even more astounding since the “elephant” is by no means a new or modern phenomenon: it goes back to the beginning of the Industrial Revolution¹⁹, which changed the proportional relationship between the input factors in favour of capital. What starts out as a perceived rise in labour productivity collapses in labour redundancy at the moment when production is fully automated. Instead of labour income for the many its income yield ends up in the hands of a few – as an economic effect of concentrated ownership of the productive capital.²⁰ At the same time, the argument that capital concentration is economically dysfunctional is undisputed, as is the thesis that democracy requires a broad distribution of wealth. Social attention so far, however, has been focused on the growing wealth of the few (e.g., anti-monopoly legislation) without acknowledging the corresponding increase in the number of those who do not own. The crucial point here is not the antagonistic relation between labour and capital, but rather the interaction of these factors. If the ownership of the machines which are replacing labour in production were more widely spread amongst the population, working people could not only reduce their effective working hours, thus enhancing their “productivity” while increasing their leisure, but at the same time replace their lost labour income.²¹

The same blind spot is found in the heated discussion on inequality: In Germany, before the 2007 meltdown, the richest 20 per cent of the population owned 80 per cent of all capital assets while 50 per cent owned either no assets at all or were in debt.²² But income inequality continued to grow throughout the crisis.²³ The German philosopher Peter Sloterdijk complained that “a good half of the population of every modern nation is made up of people with little or no income, who are exempt from taxes and live, to a large extent, off the other half of the population, which pays taxes.”²⁴ In his view, the unproductive increasingly live at the expense of the productive. But he does not ask why half of the population is economically dependant on charity from the other half nor does he show any interest in the cause of this occurrence.

5. “Creative destruction” of jobs – the interim balance in industrial societies 2011

The distributive effects discussed above would be less drastic, of course, if employment were destroyed and created at the same rate and if the new jobs were qualitatively the same as the old ones. However, MacAfee and Brynjolfsson argue that this is not the case. Technological change in the 21st century is both faster and more widespread than in the past as computers and ICT technology, unlike the steam engine, electric motor or internal combustion engine, are subject to continuous improvement.²⁵ They provide evidence for divergences between

chief executive officers (CEOs) and top executives are paid stock options, restricted stock grants, and bonuses tied to capital income” and that “If we owned our replacements, we would have our current earnings and our time freed from labor to spend as we wished [...] If other persons owned our replacement robots, we would be jobless and searching for new work at lower pay while the owners of the robots would reap the pay / marginal product from the machines that took our jobs”.

¹⁹ See, e.g., the „Leeds Woollen Workers Petition“ of 1786 complaining about the effects of machines on the previously well-paid skilled workers; <http://www.fordham.edu/halsall/mod/1786machines.asp>

²⁰ A good example is given by David Rotman in “How Technology Is Destroying Jobs”, MIT Review of June 12, 2013: “someone who creates a computer program to automate tax preparation might earn millions or billions of dollars while eliminating the need for countless accountants.”

²¹ See Rotman, D., “Who Will Own the Robots” MIT Review June 16, 2015.

²² Frick, J. / Grabka, M. “Gestiegene Vermögensungleichheit in Deutschland” (increasing asset inequality in Germany), DIW Wochenbericht Nr. 4/2009.

²³ Rosemann, M. / Tiefensee, A. „Messung von Ausmaß, Intensität und Konzentration des Einkommens- und Vermögensreichtums in Deutschland“, DIW SOEP paper 640, 2014; Hellebrandt, T. et al. „Income Inequality Developments in the Great Recession“, DIW SOEP paper 644, 2014; Anselmann, C. / Krämer, H., „Spitzeneinkommen und Einkommensungleichheit in Deutschland“ WISO direkt 9/2012.

²⁴ “Die Revolution der gebenden Hand” (Revolution of the giving Hand), FAZ 13 June 2009; the article kicked off a long controversy in German media, which, however, did not address the shift between labour and capital.

²⁵ Such, e.g., Moor’s law (1965) predicts that computers’ abilities as an extension of their processing abilities, would double every 12 month, whereas today the pace of increase in computing capacity is believed to be even faster. See Brynjolfsson, E. / McAfee, A. “Race against the machine” 2011, pages 17pp.

higher-skilled and lower-skilled workers, between “superstars” and average workers, as well as between capital and labour, a process that – as they say – is inclined to leave more and more people behind although benefiting the economy as a whole.²⁶

Another scenario mitigating the negative distributive effects mentioned would be a EU non-growth policy. However, in regard to the relationship between employment and productivity it seems unlikely that a policy of reindustrialization, currently on the European agenda,²⁷ will leave much room for the intentional non-utilization of the potential for increasing productivity that modern ICT offers. On the contrary, policy makers can be expected to exploit this potential in order to exit the great recession. A comparison of the annual growth rates in the US and Europe (see table 1) well illustrates this trade-off. While between 1970 and 1990 growth in economic output was similar, in the EU productivity growth more than doubled with low employment growth. This trend was reversed between 1990 and 2000 when the US, while maintaining its output rise, increased productivity while almost halving employment growth. In other words productivity increased at the cost of employment and vice versa. Interestingly, both economic regions show a similar decline of the wage share over the past 30 years (see above figure 1).

Table 1: Employment vs. Productivity in the US and EU 11

Economic Region	1970-1990	1990-2000
United States	Annual growth in %	
Employment	2.1	1.3
Productivity	1.1	1.9
Output	3.2	3.2
Europe (EU 11)		
Employment	0.4	0.6*
Productivity	2.4	1.5*
Output	2.8	2.1*

Note: Annual growth rates (in %); *)1991 – 2000.

Source: Landmann (2004), p. 21

But even if job creation keeps pace with job destruction, the distributive effects of automation will still lead to increasing capital concentration. As illustrated in figure 2, labour productivity as a measure of production output per human hour worked has become uncoupled from remuneration in the past: Between 1973 and 2011, average hourly compensation (which includes that of top earners as well as unskilled workers) grew just 39.2 per cent, lagging behind productivity growth of 80.4 per cent in the same interval, a phenomenon called “gross decoupling”. Critics argue, however, that when calculating this rate in terms of net decoupling, the effect dramatically decreases or even diminishes when including increased non-wage labour costs, e.g., pension contributions, healthcare benefits and other factors.²⁸ They explain the difference of gross and net decoupling with two key factors, namely inequality and non-wage labour cost and acknowledge, nonetheless, that increasing wage inequality is an important factor contributing to the phenomenon of “decoupling”.

It is predictable that in tomorrow’s world productivity will still be rising sharply but this increase will become increasingly disconnected from wages and salaries for the many, while the few will benefit from ever steeper increases in executive remuneration and capital earnings.²⁹ As technological progress embodied in ICT capital has been biased against the less educated and the average worker and only in some cases towards high-skilled labour – as argued earlier – concomitant changes in the employment structure will worsen the negative distributive

²⁶ See Brynjolfsson, E. / McAfee, A. “Race against the machine” 2011, pages 10, 39pp, 46.

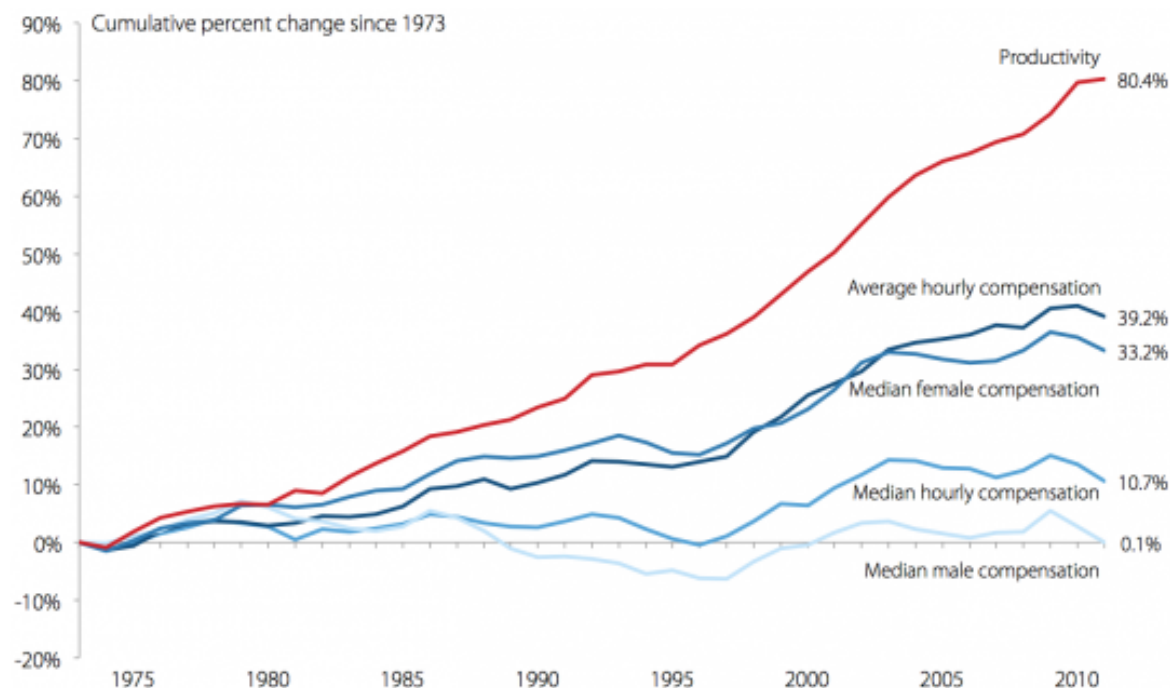
²⁷ See, e.g., Commission Communication “For a European Industrial Renaissance” COM2014 (14) final.

²⁸ See Pessoa, J. P. / Van Reenen, J., “Wage growth and productivity growth: the myth and reality of ‘decoupling’”, CentrePiece, Autumn 2013.

²⁹ See John Lanchester in the London Review of Books Vol. 37 No. 5 of 5 March 2015 “The Robots Are Coming” who also gives an illustrative example for that trend: „In 1960, the most profitable company in the world’s biggest economy was General Motors. In today’s money, GM made \$7.6 billion that year. It also employed 600,000 people. Today’s most profitable company [i.e., Apple] employs 92,600. So where 600,000 workers would once generate \$7.6 billion in profit, now 92,600 generate \$89.9 billion, an improvement in profitability per worker of 76.65 times.”

effects. However, as the digital revolution generally reduces labour input across the board in an economy based on growth, labour falls as capital-based incomes rise; consequently wealth inequality will continue to increase.

Figure 2: Growth of hourly productivity, real average hourly compensation, and real median hourly compensation (overall and by gender), 1973–2011 (Source: Mishel, L., EPI Issue Brief #330, 2012)



6. The postulate: A race for the machine

Interestingly, the Polish writer and futurist *Stanisław Lem*, who took a great interest in cybernetics and robotics,³⁰ anticipated these problems in Poland as early as 1954.³¹ Four years later, in 1958, the American corporate lawyer and merchant banker *Louis O. Kelso* presented an analysis of the fundamental causes of this phenomenon and a proposal for dealing with its economic effects in his book “The Capitalist Manifesto”.³² He invented a novel financial mechanism, the prototype of the leveraged buyout, to finance ownership of productive property for employees, later to be known as the Employee Stock Ownership Plan (ESOP). Kelso’s ESOP uses the borrowing power of the employer company to finance the purchase of shares in that company by its employees; the acquisition loan is repaid from the future earnings of the credit-financed shares.³³

The root of the problem, he argued, was access to capital credit in order to acquire productive property, in other words the non-human things that produce wealth in an industrial society.³⁴ A solution to the dilemma of machines substituting for humans and reducing labour demand

³⁰ The word robot was coined by the Czech interwar writer *Karel Čapek* in his play *R.U.R.* (Rossum’s Universal Robots), published in 1920. Literal meaning of the word “robota” is “corvée”, “serf labor”, and figuratively, “drudgery” or “hard work” in Czech; also (more general) “work”, “labour”, in many Slavic languages.

³¹ „Dzienniki gwiazdowe - Podróż dwudziesta czwarta Ijona Tichego” (The Star Diaries - The 24th Voyage of Ijon Tichy), *Zbiór Sezam i inne opowiadania*, 1954.

³² *Kelso, L. O. / Adler, M., J.* “The Capitalist Manifesto”, Random House, New York, 1958; further developed and explicated in *Kelso, L. O. / Hetter, P.* “Two-Factor Theory: The Economics of Reality”, Vintage Books, Random House, New York, 1967.

³³ An ESOP ordinarily involves a loan to an employee benefit trust, which acquires company stock and allocates it through periodic contributions to each employee’s ESOP account. The loan may be serviced by payments by the company from company profits or from dividends paid on the ESOP stock.

³⁴ It is worth noting here that the Polish trade union “Solidarity” celebrated Kelso’s visit to Warsaw in October 1989, and insisted on making employee ownership a part of the privatisation process. “Solidarity” took a quite different position from that of most European trade unions at the time.

would be for European citizens to acquire a significant share of co-ownership in the robots competing with them on the labour market, subsequently providing them with a second source of income independent of their labour.³⁵ This is in line with the most recent support of the European Commission for Employee Ownership.³⁶

While Neelie Kroes, Vice President of the European Commission, asserted that *"Europe needs to be a producer and not merely a consumer of robots"*, Kelso would have added his own postulate urging a "race for the machine" to enable citizens to become owners of the robots who both serve and replace them.

³⁵ See also Freeman, R. "Who owns the robots rules the world", IZA World of Labor 2015: 5.

³⁶ European Commission, "Study on the Promotion of Employee Ownership and Participation", prepared for the European Commission DG MARKT by J. Lowitzsch / I. Hashi et. al., Brussels, 188 p., 2014.

**Annex: Stanisław Lem excerpt from the 1954 *Memoirs of a Space Traveler*
Further Reminiscences of Ijon Tichy, The 24th Voyage:**

...

"... Through the ages our inventors built machines that simplified work, and where in ancient times a hundred Drudgelings had bent their sweating backs, centuries later a few stood by a machine. Our scientists improved the machines, and the people rejoiced at this, but subsequent events showed how cruelly premature was that rejoicing. A certain learned constructor built the New Machines, devices so excellent that they could work quite independently, without supervision. And that was the beginning of the catastrophe. When the New Machines appeared in the factories, hordes of Drudgelings lost their jobs; and, receiving no salary, they faced starvation. . ."

"Excuse me, Phool," I asked, "but what became of the profits the factories made?"

"The profits," he replied, "went to the rightful owners, of course. Now, then, as I was saying, the threat of annihilation hung ..."

"But what are you saying, worthy Phool!" I cried. "All that had to be done was to make the factories common property, and the New Machines would have become a blessing to you!"

The minute I said this the Phool trembled, blinked his ten eyes nervously, and cupped his ears to ascertain whether any of his companions milling about the stairs had overheard my remark.

"By the Ten Noses of the Phoo, I implore you, O stranger, do not utter such vile heresy, which attacks the very foundation of our freedom! Our supreme law, the principle of Civic Initiative, states that no one can be compelled, constrained, or even coaxed to do what he does not wish. Who, then, would dare expropriate the Eminent's factories, it being their will to enjoy possession of same? That would be the most horrible violation of liberty imaginable. Now, then, to continue, the New Machines produced an abundance of extremely cheap goods and excellent food, but the Drudgelings bought nothing, for they had not the wherewithal. . ."

"But, my dear Phool!" I cried. "Surely you do not claim that the Drudgelings did this voluntarily? Where was your liberty, your civic freedom?!"

"Ah, worthy stranger," sighed the Phool, "the laws were still observed, but they say only that the citizen is free to do whatever he wants with his property and money; they do not say where he is to obtain them. No one oppressed the Drudgelings, no one forced them to do anything; they were completely free and could do what they pleased, yet instead of rejoicing at such freedom they died off like flies. . . ."

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