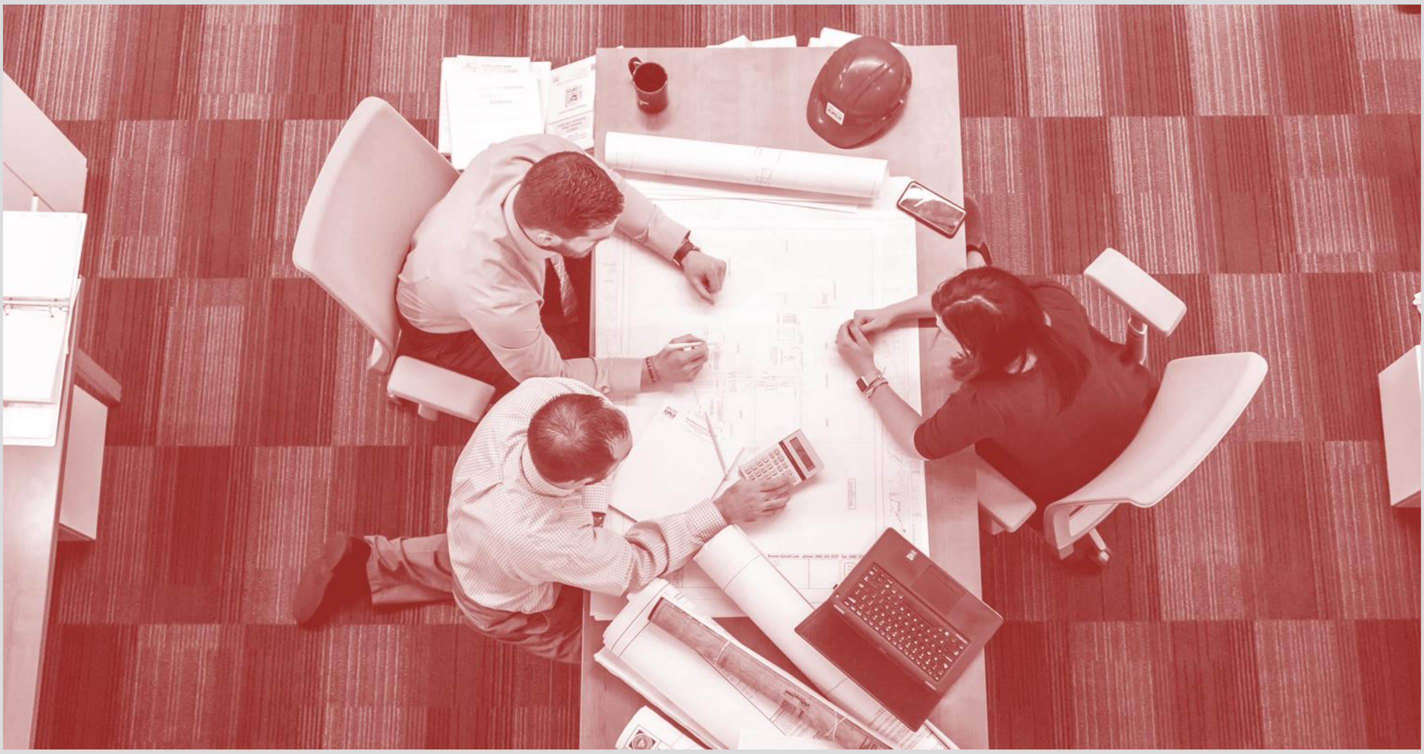
BUSINESS & THE GREEK ECONOMY | SPECIAL REPORT WAGES & PRODUCTIVITY | SEV Hellenic Federation of Enterprises



Wages, Productivity and Competitiveness in Greece

The institutional framework for wage policy setting and its actual implementation during pre-crisis years contributed substantially to the erosion of the country's competitiveness. Additionally, it shielded parts of the economy which are not exposed to international competition and do not produce internationally tradable goods and services, and, thus, put sectors that were trying to remain competitive internationally in a comparatively unfavorable position. The result was a temporary improvement in earnings and living standards which to a large extent was unsustainable and collapsed with the onset of the crisis.

Wage increases were not actually the only problem. The underlying issue was that Greece attempted to introduce earnings equivalent to those of a higher income developed country without offering the framework for market operations, the institutional maturity and the possibility to develop the private economy and the sector of "internationally tradable goods' as is the case in other higher income developed countries. When wage increases are not accompanied by a series of other factors such as low non-wage labour costs, the ability to transform production structures and patterns, an appropriate regulatory and administrative framework, reasonable borrowing costs, macro-economic ability and a strong rule of law, they lead to a deterioration of a country's domestic international competitiveness which in turn, acts as an impediment to growth, leads to job losses and a reduction of income for the majority of households.

The main lesson learnt from the Greek crisis is clear: any attempt to revert to past practices will preserve the economy's structural weaknesses and damage irreparably the country's remaining competitive and sustainable forces in "internationally tradable" goods and services. On the contrary, an effort to correct these weaknesses will ultimately lead to permanent and sustainable employment and wage growth. In this context, decisions to increase wages **must be** linked to increased productivity in the 'internationally tradable' goods and services sectors. Productivity growth is a prerequisite for parallel wage growth and the only way to distribute a "productivity dividend" to society without undermining growth.

This is a summary of a report written by Christos A. Ioannou, Economist, SEV Advisor to the Board, Kostas N. Kanellopoulos, Economist and Sotiris Petros, Statistician, prepared for the Conference on the Future of Work.

Wages, productivity, competitiveness and prosperity

Greece is a small economy, open to the movement of Single Market goods, which displays weak integration into international value chains and a significant contribution of international non-market services to employment and GDP. It is also a member of the euro area but with restrictions on capital movements, a virtual exclusion from the Single Market for financial services, and a high public debt which creates significant policy constraints.

In this context, Greece is striving to transform itself into a productive, extrovert and competitive economy. In practice, this means that the policy of setting and adjusting wages significantly affects its operation and performance, both internationally and domestically.

When wage increases are not accompanied by a series of other factors such as the non-wage labour costs, the ability to transform production patterns, an appropriate regulatory and administrative framework, reasonable borrowing costs, macro-economic ability and a strong rule of law, they lead to a deterioration of a country's domestic international competitiveness which, in turn, acts as an impediment to growth, leads to job losses and a reduction of income for the majority of households

Nowadays, more than ever, non-wage competitiveness, and thus wages that can be paid without undermining international competitiveness, depend on the productivity of invested capital and the knowledge embodied within, technological changes and, ultimately, the ability to continuously transform the supply side of an economy. It also depends on the differential cost generated (or not) by taxation levels, macroeconomic certainty, the ability to access finance under internationally competitive conditions, the quality of the "rule of law" and direct and uncertainty costs due to administrative procedures and regulations.

What is important, therefore, is not only the absolute level of wages and general labour costs, but their balance with the economy's non-wage competitiveness, which is ultimately determined by many factors, some of which have been mentioned previously.

Generally speaking, if wage increases and labour costs are not consistent with the realities that these factors shape, they (sooner or later) increase inflation, reduce domestic and international competitiveness, lead to weaker exports and reduce their ability to replace imports, discourage economic development and ultimately result in fewer jobs and lower income for the majority of households.

In conclusion, a society's prosperity is best built and safeguarded when institutions and the general economic environment allow for the economy's continuous transformation by integrating technological developments and skills, and equipping workers with the skills that will enable them to take advantage of the opportunities offered by such an environment.

If this path is followed, employment increases and prosperity is spread throughout society as a whole which in turn, allows the economy to offer higher wages without undermining its international competitiveness.

Evolution of earnings and labour productivity before the crisis and during the years of adjustment

During the period 1995-2007, Gross Domestic Product (GDP) in real terms showed an average annual growth of 3.9%, average annual nominal wages increased by 7.0%, while real average wages (deflated by the CPI) increased by 3.0% per year. This rate was significantly higher compared to labour productivity, which increased by 2.6% during the same period, thus contributing to the deterioration of the country's international competitiveness.

During the period 2000- 2009, the highest rates of annual wage growth compared to those of the whole economy (5.7%) were recorded in the financial sector (7.5%), the arts and entertainment (7%), and the public sector (6,6%), while in the internationally competitive secondary sector (manufacturing and industry) wages increased by 4.5%.

Afterwards, and during the crisis years, there has been a significant decrease in average nominal and real wages for the whole economy. More specifically, the decrease for the period 2009-2016 amounts to 18, 9% and 22, 5% respectively (decrease of GDP by 22, 9%). Since 2011, the average real salary has fallen below the wage levels of 2002 and in the coming years will remain at around 88% of that figure. These percentages express the “internal devaluation", which is quantitatively significant. During the crisis, annual wage cuts in the public sector (-2.4%) were lower than the total average (-3.1%) while those in the secondary sector and the freight transport and tourism sector fell respectively by -3.4% and - 4.3% on an annual basis. Similar findings arise if we look at the evolution of real wages by sector.

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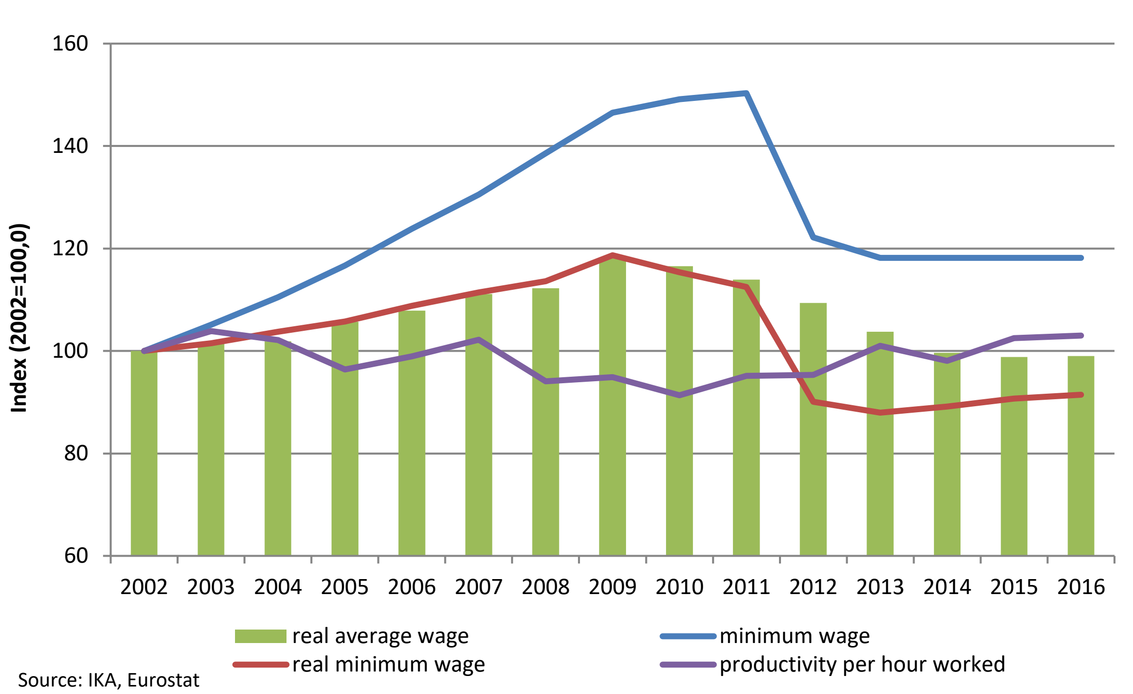
As far as manufacturing is concerned, and according to average wage figures from IKA (the national institute of social security), it appears that minimum and average wages (in constant prices) were evolving at similar rates until 2012, systematically outstripping developments in manufacturing productivity in, which actually stagnated during the period under review.

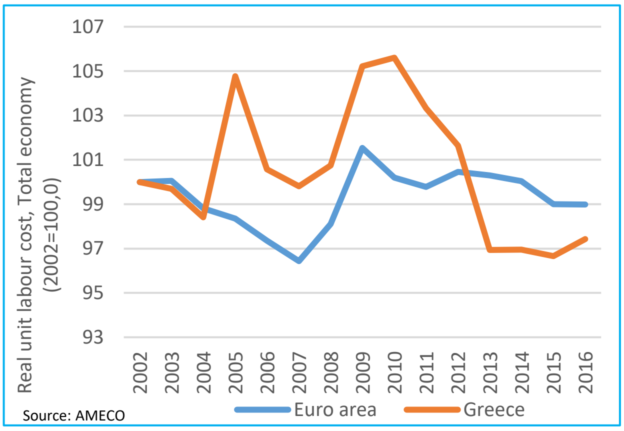
It is only in 2015 and after many years, that the productivity index of manufacturing actually exceeds the corresponding average wage, clearly indicating the corresponding losses of international competitiveness of Greek manufacturing over many years (**D1**).

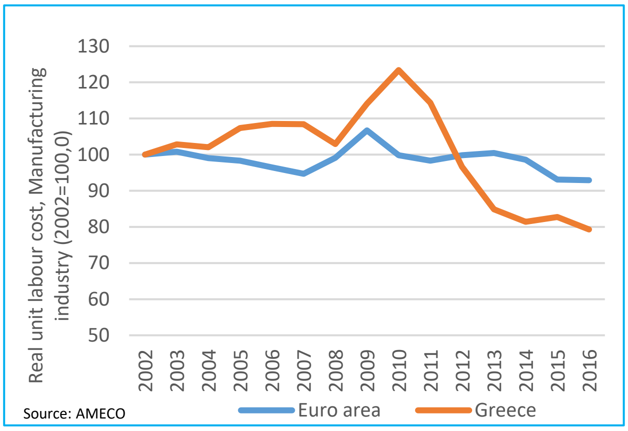
D1. Wages and Productivity per hour worked, Manufacturing in Greece *(Source: IKA, Eurostat)*



For many years, the rate of increase in average wages in Greek manufacturing were determined by the rate of increase in minimum wages, completely ignoring in the process the stagnation or even decline in productivity.

It is, however, important to note that significant differences have been recorded throughout this period in the evolution of production, productivity, unit labor costs (**D2, D3**) and wages, both between the whole economy and the manufacturing sector, as well as between different sectors of economic activity.





D2. Real Unit Labour Cost, total economy

D3. Real Unit Labour Cost, Manufacturing Industry

Source: AMECO

By and large, sectors of the private economy which faced strong international competition during the boom period, experienced comparatively lower increases in production (the secondary sector was 1.2% versus 2.5% in total), while sectors producing domestically-tradable goods and services exceeded the overall increase. As a result of its exposure to competition, the part of the private sector producing "internationally tradable" goods showed greater resilience during the adjustment period which translates into a lower average decrease in economic activity compared to other sectors. More specifically, the enlarged secondary sector decreased by 2.8% per annum vs.3.2%on average, while sectors such as construction, followed by trade, transport, catering and accommodation, declined dramatically.

Why was the increase in wages during the pre-crisis years not sustainable?

During the period 1995-2010 , the hourly rate in Greece recorded the highest increase in the EU reaching 142% compared to 58.6%.in the EU28 Labour productivity growth in the same period rose by 29% in Greece compared to 25% the EU28 .

As a result, Greece became a champion in unit labor costs increases (= the ratio of labor costs to labor productivity) or, in other words, declining labour cost competitiveness.

Wage increases were not actually the only problem. The underlying issue was that Greece attempted to introduce earnings equivalent to those of higher income developed country without offering the framework for market operations, the institutional maturity and the possibility to develop the private economy and the sector of "internationally tradable goods' as is the case in other high income developed countries.

During the period 1995-2010, the Greek manufacturing sector saw the highest hourly wage increases (reaching 97%) in the EU, while increases in productivity were limited to 18% which is only one third of the productivity growth in EU28 manufacturing as a whole. In contrast, in some European countries such as Germany, Ireland and France, increases in the hourly rate in manufacturing were clearly lower than their productivity gains, thus contributing to a significant improvement in the international competitiveness of the manufacturing sector of these countries.

For a number of countries, these circumstances changed drastically after 2010. Wage increases were reduced, while in Greece there was a sharp drop in wage levels leading to a significant reduction in the unit labor cost index, which in 2016 was clearly below the EU28 average. Wage reductions in Greece were accompanied by lower reductions in productivity, with unit labor costs declining both in the economy as a whole and in manufacturing.

In 2016, unit labor costs in manufacturing in Greece became the second lowest in the EE28 countries. Only Ireland shows unit labor costs lower than Greece, due to the impressive increase in production in recent years. It seems that drastic reductions in wages in Greece since 2010 have finally restored the country's international competitiveness on the basis of labour costs over the past fifteen years for the whole economy and the manufacturing sector.

But was the increase in earnings undesirable? In fact, convergence with the levels of prosperity of high income developed countries had always been a goal for Greece and a declared EU target, during the years before the crisis. In this sense, wage growth was not the only problem. The problem was that this increase was not based on a continuous transformation of a dynamic economy, the development of a strong productive base and the strengthening of the country's underlying productive capacity that would have allowed for such salaries. The underlying issue was that Greece attempted to introduce earnings equivalent to those of higher income developed countries without offering the framework for market operations, the institutional maturity and the possibility to develop the private economy and the sector of "internationally tradable goods' as is the case in such countries. Moreover, it failed to take into account that the manufacturing and industry sector is, in general, able to offer comparatively higher wages compared to the trade and construction sector as well as many other service sectors.

Given that industry offers full-time jobs over the whole year and higher monthly salaries, it ends up providing, on average, to its employees up to twice as much the annual income in comparison to service sectors such as trade and, catering (as recorded in the relevant SEV's weekly bulletin).

Developments of Real Effective Exchange Rate Index (REER)

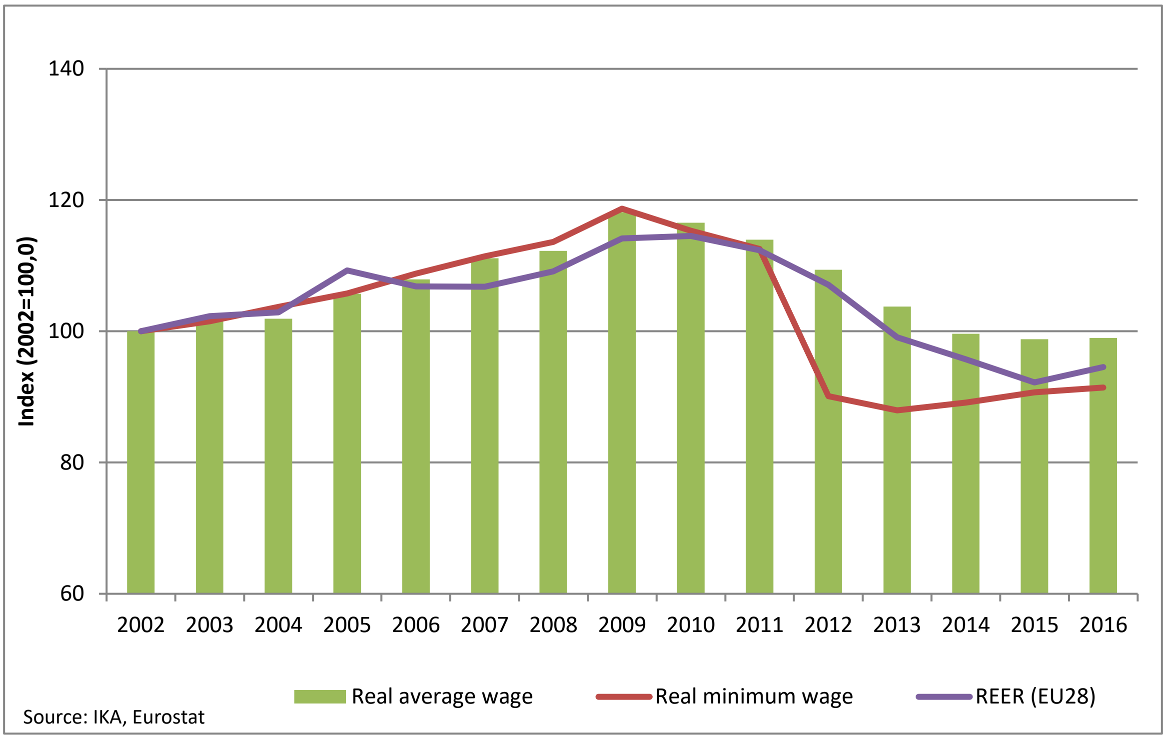
In order to make reliable comparisons between countries, labour productivity (whose growth implies improved international competitiveness) and wages (whose increase results in a reduction in competitiveness) are converted into a quasi-common currency through the exchange rates between the individual currencies of the countries concerned.

This results in an aggregated competitiveness index called the Real Effective Exchange Rate Index, based on unit labour costs. International organisations have traditionally calculated REER indicators to monitor the evolution of economies' competitiveness, which in Greece are derived from Eurostat.

The notion of competitiveness, as expressed by the real exchange rate based on relative unit labor costs between a particular country and its trading partners, is roughly identical to the ratio of relative prices (which changes in the same way as labour costs per unit of product) between "internationally tradable" and "non-tradable" sectors and industries in that country. The preservation of competitiveness thus presupposes the stability of the real exchange rate.

Until 2009, and in similar fashion to wages, the Real Effective Exchange Rate Index (REER) for the whole economy increased incrementally and thus, deteriorated. Between 2010 and 2015, it decreased steadily to spike up again in 2016. From 2013 onwards, the REER recovered its losses since 2003, indicating a restoration of the international competitiveness of the Greek economy.

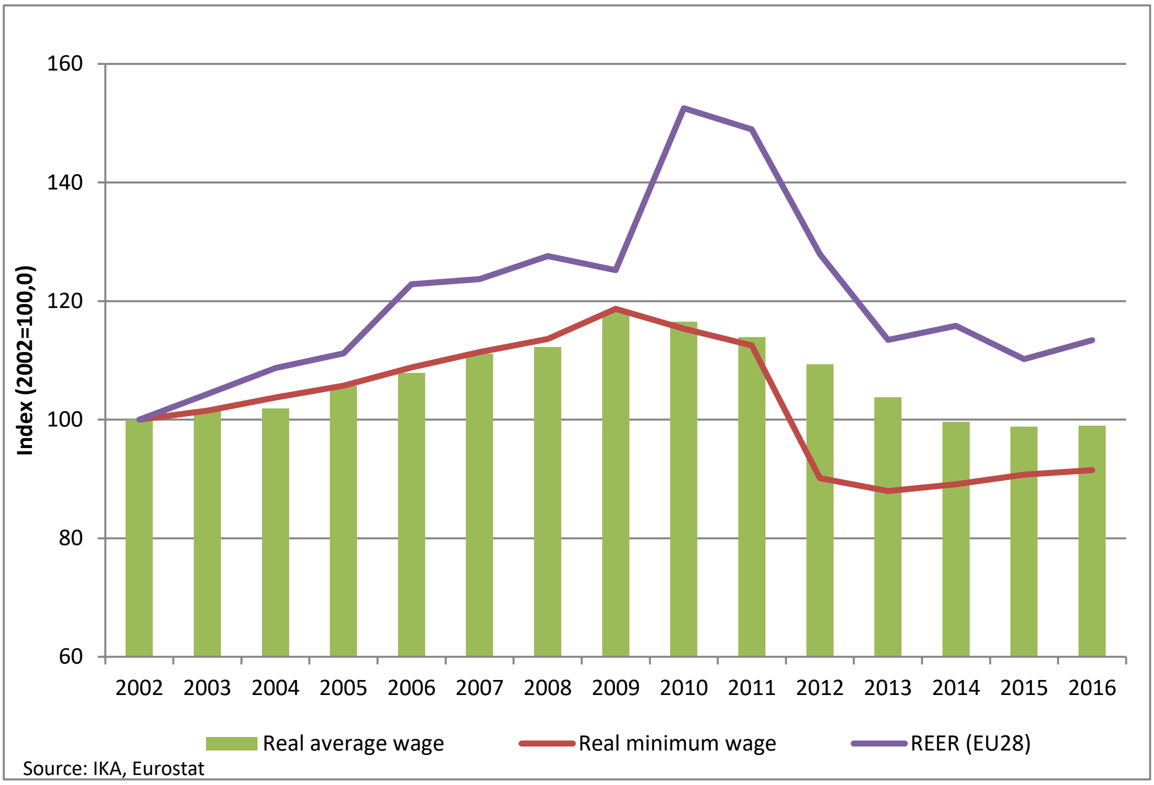
D4. Wages and Real Effective Exchange Rate (REER) based on Unit Labour Cost in total economy, *Source:IKA, Eurostat*



This, in practice, means that the ratio of unit labor costs (wages to productivity) must remain stable between the two sectors. In other words, an increase in wages in the 'non-internationally tradable' sectors usually leads to price increases when productivity does not improve. If this increase is, in some way, imposed on the 'internationally tradable' sectors, (and given that prices in 'internationally tradable' sectors are determined on international markets), these sectors will then start to operate at a loss as they are unable to improve productivity to compensate for the increase in wages. If, subsequently, the increases in the relative prices of 'internationally non-tradable' sectors are consolidated through macroeconomic demand policies, there is a deterioration in the competitiveness of the 'internationally tradable' sectors that begin to shrink. This is what happened in Greece during the period 2000-2009.

The picture is quite different if the examination is limited to Greek manufacturing (**D5**). Based on wage data from the national institute of social insurance (IKA), the REER based on unit labor costs in manufacturing by 2010 deteriorated considerably and significantly more than the average and minimum wage increases in the sector,. From this, it can be deducted that the deterioration in the competitiveness of Greek manufacturing does not appear to be solely due to developments in the recorded labour costs.

D5. Wages and Real Effective Exchange Rate (REER) based on Unit Labour Cost in Manufacturing, *Source: IKA, Eurostat*



A more plausible explanation is that improvements (= reductions) in the labour costs or productivity in the manufacturing sector in competing countries also contributed to the relative deterioration in the competitiveness of Greek manufacturing. This means that the criterion for wage increases cannot solely be based on domestic productivity, but should also take into account wage developments in competing countries. It is also worth noting that, during the period 2011-2015, wage reductions in manufacturing led to improvements of the REER in question. At the same time, however, the REER still remains above the levels of 2002 even though wages have fallen below that level.

This means that improving competitiveness is not only linked to labour costs but also to other factors such as access to capital and its costs, intermediate inflows, bureaucracy and productive investments, which improve production and productivity in a sustainable manner. These are the required institutional and economic developments in order to be able to offer higher wages without losing competitiveness.

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Factors determining the Real Effective Exchange Rate Index (REER) and alternative scenarios for the future

A deep understanding of the interaction between wage and REER in manufacturing based on labour costs is useful in developing wage policy.

To this end, we calculated models for determining the REER for the period 2000A - 2016D, which as independent variables, beyond the expectations of economic theory, include minimum wages or alternatively average wages.

It turns out that there is a significant strong positive correlation between the minimum wage and the REER in manufacturing, which is maintained even when all other variables considered to affect competitiveness are gradually added to the equation.

According to the figures for the period 2000-2016, an increase of 10% in the minimum wages implies a ceteris paribus decrease in the competitiveness of manufacturing by 2.9%.

- There is a negative correlation between changes in minimum wages and average wages and changes in competitiveness.
- Labour productivity has a strong positive impact on the competitiveness of the manufacturing sector.
- Corporate lending rates have a significant negative impact on the competitiveness of the manufacturing sector

The negative correlation between minimum wages and competitiveness in manufacturing during the previous period, has also been confirmed by the Granger's assessment, where changes in minimum and average wages are negatively linked to the change in competitiveness and vice versa.

Variables	Coefficients of regression	Change 2002-2009	Change 2010-2015	Alternative scenarios	Effect on the change of REER 2002-09	Effect on the change of REER 2010-15	Effect on the change of REER, column (4)
Real minimum wage	**0,29**	2,48	-4,69	0,00	0,72	-1,36	0,00
Productivity per hour worked	**-0,29**	-0,75	2,33	1,50	0,22	-0,68	-0,44
Change in real business lending rate	**0,19**	-5,71	-0,26	-3,50	-1,06	-0,05	-0,65
Real investments in Manufacturing sector	**-0,05**	3,56	-7,33	7,00	-0,19	0,38	-0,36
Harmonised index of consumer prices	**0,17**	3,12	0,15	1,20	0,54	0,03	0,21
Unit Labour Cost EU28	**-0,18**	0,60	0,44	0,50	-0,11	-0,08	-0,09
REER (1)	**0,69**	4,74	-1,54	-1,50	3,29	-1,07	-1,04
					3,41	**-2,83**	**-2,38**

D.6 Simulations Competitiveness in Manufacturing (*C. A. Ioannou, C. N. Kanellopoulos, S. Petros. 1 Real Effective Exchange Rate)*

At the same time, labour productivity has a strong negative (= improvement) effect on the competitiveness of manufacturing (coefficient of elasticity = -0.29) as well as investments in manufacturing with, however, a relatively low coefficient (-0,05). Corporate lending rates and the harmonised consumer price index have a significant negative impact on the competitiveness of the manufacturing sector (elasticity factor = 0.19 and 0.17 respectively).

These results show that, in the coming years, the actual implementation of specific objectives of the country's medium-term programme, i.e. a small increase in prices, the reduction of corporate lending rates and, above all, investment growth and productivity gains can lead to a significant improvement of the international competitiveness of the Greek manufacturing sector.

In order to design a roadmap to improve the country's economic and industrial competitiveness, we looked at alternative scenarios and assumptions about the possible evolution of our model variables and we calculated their impact on competitiveness (**D6**).

First of all, we must avoid the theoretical and, of course, impossible scenario that the country will proceed as as it did in the period between 2002 and 2010. That is, with significant increases in minimum wages, productivity losses, significant interest rate cuts, low investment and relatively high inflation.

This scenario, which for many is considered desirable and a "return to normality", would again cause significant losses in the competitiveness of the manufacturing sector by 3.41 percentage points, and must be avoided if we want prevent a slump in Greek production, given that the favourable factors of the period 2002-2010 such as, for example, the significant reduction in interest rates, are no longer there.

An attempt to revert to past practices, while maintaining their structural weaknesses, will damage irreparably country's remaining competitive and sustainable productive forces. On the contrary, an attempt to correct the weaknesses of the past will ultimately lead to permanent and sustainable employment growth as well as earnings.

We are also entering a period where we have to overcome historically negative variations in the independent variables of the period 2010-2015, i.e. a significant reduction in the minimum wage, a large increase in the corporate lending rate and a large reduction in investment in industry.

The developments during the 2010-2015 period can either be seen as a necessary and an inevitable difficult adjustment following the misguided policy choices of the previous period, or the result of an ineffective mix of policy that instead of pushing for the necessary reforms and opening up of markets, economic stability and strengthening of the investment climate and actual investment, was characterised by excessive taxation, unwillingness to implement structural reforms and, in view of all these, a unilateral adjustment of the cost of productive labour and, more generally, of the economy's productive private sector.

The Roadmap for sustainable development and social cohesion, which should form the basis for discussion and orientation and be based on an effective social dialogue, ought to be built on the following pillars:

- a revival of investment in manufacturing, which has already dropped to extremely low levels
- a significant decrease in corporate lending rates (broadly by 3.5%) in order to reach the lending levels of enterprises in neighbouring countries,
- an increase in prices according to the latest medium-term budgetary adjustment programme, i.e. at a rate of 1.2%. It is important that domestic increases remain lower than that of other eurozone countries
- productivity should remain steadily positive, and the minimum wage should remain unchanged. In this case, the improvement in competitiveness will be significant (-2.38).

If this roadmap, is actually implemented and results in an improvement of the county's competitiveness and employment rate, it will subsequently also allow for a gradual increase in the minimum wage, in line with competitiveness gains. In fact, businesses that have taken the necessary steps in order to improve their international competitiveness, and are thus profitable in a sustainable manner, are already offering wage increases.

This policy mix will offer a positive way out of the current situation and provide for an outcome that is mutually beneficial to businesses, workers and the nation's economy. It can result in a significant improvement of the economy's international competitiveness, and in particular that of the manufacturing sector. This can be achieved through different means, amongst others: investments, the normalisation of the banking system, a more effective regulation of labour relations and the organisation of work, which in turn will also lead to wage increases. In conclusion, any attempt to revert to past practices, while maintaining inherent structural weaknesses, risks damaging irreparably the country's remaining competitive and sustainable productive forces in the field of internationally tradable goods and services. On the contrary, an attempt to correct the weaknesses of the past will ultimately lead to permanent and sustainable employment growth as well as earnings.

Conclusions

The only way to improve the country's competitiveness is to boost investment and comparative profitability in the "internationally tradable" goods and services sector so that production can shift from "internationally non-tradable" to "internationally tradable "sectors. This mainly involves the liberalisation of markets and competitive forces (structural reforms) that will effectively end the ability of the existing governance system to hinder the development of the 'internationally tradable goods' sector, and thus allow it to strengthen its profitability and make investments that will eventually absorb workers who will inevitably have to move away from traditional, non-extrovert sectors of the economy.

Given that the ability of companies to offer wage increases ultimately depends on their productivity growth, it naturally follows that wages increases cannot be the same indiscriminately in all sectors. They will vary according to market forces and ultimately be determined by the economy's competitiveness.

Wage policy plays a crucial role in this process. Given that the ability of companies to offer wage increases ultimately depends on their productivity growth, it naturally follows that wages increases cannot be the same indiscriminately in all sectors. They will vary according to market forces and ultimately be determined by the economy's competitiveness. Decisions to increase wages should be linked to increased productivity in the 'internationally tradable' sector, whose growth must be a priority and a precondition for parallel and simultaneous wage growth and the maintenance and improvement of competitiveness.

As can be seen from our analysis, while competitiveness is not exclusively or primarily related to wage changes and wage costs, wage setting must be compatible with the preservation of competitiveness. An important aggravating effect on competitiveness is borne by corporate lending rates (elasticity factor = 0.19) and the harmonised consumer price index (0.17).

This effectively means that the country's economic policy priorities cannot be limited to how salaries and minimum wages can increase but must also focus on improving the investment climate, the functioning of banking system and corporate lending rates and ensuring inflation remains stable. When economic policy fails to take into account crucial factors that ultimately determine a country's competitiveness (productive and profitable investments, corporate lending rates, inflation, etc.), this inevitably results in significant pressure being put on labour costs and productive labour altogether. In this light, social partners cannot remain indifferent to such critical issues.

In today's world, policy choices that negatively impact the quality of institutions and the business environment, and which unnecessarily increase production costs and non-wage costs, simply cannot continue because they end up exerting relentless pressure on wage costs, productive labour and productive enterprises. This is something that society in general and policymakers must accept.

As the crisis has amply demonstrated, the failure to strengthen non-wage competitiveness created a situation whereby existing wage levels could not be maintained as they could no longer survive the erosion of the country's competitiveness, which was the result of a combination of factors altogether. It happened because the Greek economy and economic policy did not take steps to improve non-wage competitiveness. On the contrary, it actually contributed to its deterioration with erosions starting from energy costs and the cost of financing, non-wage costs and tax uncertainty, corruption, the gradual accumulation of poor quality regulatory arrangements for business licensing and operation, the failure to establish education and labour market interconnections, and imperfections in the tax system which created business disincentives. All these factors have resulted in a general weakness in the rule of law and the inability of the justice system to deliver rulings within reasonable timeframes. Society and policymakers must accept that this situation cannot continue as it ends up exerting relentless pressure on wage costs, productive labour and productive enterprises.

The country's economic policy priorities cannot be limited to how salaries and minimum wages can increase but must also focus on improving the investment climate, the functioning of banking system and corporate lending rates and ensuring inflation remains stable.

SEV Members Financial Data

ASSETS
€325 bn
69% of total*

EQUITY
€61 bn
51% of total*

TURNOVER
€66 bn
46% of total*

PROFITS BEFORE TAXES
€4.0 bn**
41% of total**

EMPLOYEES
197,000
10% employees insured by EFKA

WAGES
€4.9 bn
18% of total***

SOCIAL SECURITY CONTRIBUTIONS
€2.1 bn
23% of total***

TAXES ON PROFITS
€1.1 bn
27% of total****

* 21,075 financial statements for fiscal year 2017 included in ICAP database
** sum of reported profits
*** % of total regular earnings (excluding bonuses and overtime)/social security contributions of employees insured by EFKA
**** % of total revenues from corporate income tax
Source: ICAP, Hellastat, Ministry of Finance, EFKA, ELSTAT

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