



ECFIN *Country Focus*

ECONOMIC ANALYSIS FROM EUROPEAN COMMISSION'S DIRECTORATE-GENERAL FOR ECONOMIC AND FINANCIAL AFFAIRS

HIGHLIGHTS IN THIS ISSUE:

- *The large discretionary increase in the minimum wage in 2010 and the automatic indexation each year are expected to inflict large efficiency costs in terms of employment and cost competitiveness*
- *The minimum wage can have perverse effects on poverty if efficiency costs become too high*
- *Attempts to set the minimum wage equal to a relative measure of poverty in a country with a relatively equal income distribution are likely to prove counterproductive*

Minimum wages in Slovenia: Reducing employment but not poverty?

By Klara Stoviček* **

Summary

This Country Focus discusses the minimum wage in Slovenia in the context of efficiency and poverty concerns. The large discretionary adjustment in the minimum wage in 2010 pushed labour costs at the minimum wage substantially higher, reinforced downward wage rigidity at the bottom of the wage distribution, and contributed to losses in price competitiveness. Following the hike in the minimum wage, Slovenia is now among the EU countries with the highest minimum wage relative to the average wage in both gross and net terms. However, the net income of single minimum wage earners does not surpass the at-risk-of-poverty threshold (as measured according to the concept of relative poverty). This outcome can be explained by the relatively equal income distribution. The minimum wage does not appear to be an appropriate tool to address poverty. By targeting workers, it does not reach non-working households, which are at the highest risk of poverty. In addition, given that the minimum wage targets individual workers while poverty depends on the income of the whole household, it may also benefit minimum wage workers which live in non-poor households. Indeed, the at-risk-of-poverty rate of employed, including workers with primary education who tend to be low-paid, is relatively low in Slovenia. Conversely, as shown in this Country Focus, the minimum wage may not help lift certain types of households (one-earner couples) out of poverty. Therefore, adjustments of the minimum wage aimed at reducing poverty may not only be poorly targeted but could also contribute to poverty if they also lead to lower employment.

Introduction

The primary aim of setting minimum wages is to establish a "living wage" at the bottom of the wage distribution. This aim stems from distributional concerns in view of tendencies towards widening wage inequality.¹ Policies setting a minimum wage may also target other objectives. Effective labour supply can be increased if the minimum wage enhances financial incentives to take up work. Furthermore, setting a minimum wage may raise the productivity of workers if it leads them to increase their investment in training, improves social inclusion, boosts employee morale and contribute to lower gender pay gap.² However, high minimum wages may have large efficiency costs in terms of employment,

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■ *Our objective is to evaluate efficiency and poverty concerns related to the minimum wage in Slovenia*

affecting in particular specific groups of low-paid workers for which the elasticity of demand is high, especially if the rise is applied uniformly and does not take into account different productivity levels. Furthermore, minimum wage increases may fail to effectively address in-work poverty concerns, in particular if they are poorly targeted and carry large efficiency costs. Therefore, the pros and cons of using the minimum wage to address in-work poverty should be carefully assessed in order to avoid undesirable effects. This Country Focus analyses the minimum wage in Slovenia from two perspectives, namely the extent to which it is posing risks to employment and the extent to which it may be considered to be an efficient tool to fight the risk of in-work poverty.

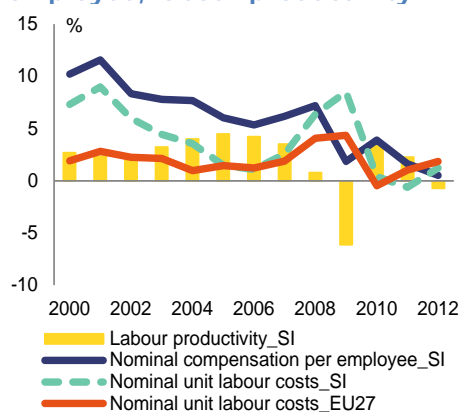
The minimum wage and efficiency concerns

A minimum wage that is set at too high level can have a negative impact on employment. By pushing firms with low value added out of the market, the minimum wage increases inflows to unemployment. By introducing wage rigidity at the bottom of the wage distribution and by preventing firms from offering lower wages, notably to new hires, the minimum wage reduces inflows to employment. Substantial upward adjustments in the minimum wage can also generate general wage pressures as employees seek to re-establish wage differentials above the minimum wage.

In March 2010, the statutory minimum wage increased from 597 to 734 euros per month (Graph 2). This large discretionary adjustment in the minimum wage coincided with the economic slowdown and interrupted the deceleration in compensation per employee (Graph 1). The magnitude of the hike (22.9%) was exceptionally strong compared to developments since its introduction in 1995. A transitional period of almost two years was introduced for firms in financial difficulties, envisaging a gradual increase in the minimum wage until end-2011 (Graph 2). At the beginning of each year since 2011, the minimum wage was also adjusted by the inflation rate in the previous year, resulting in a further increase of 6.7% in the minimum wage to reach 784 euros per month in 2013.

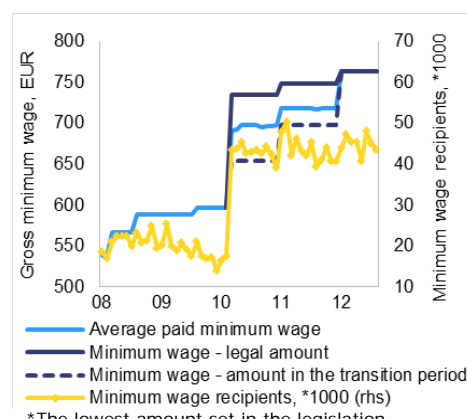
■ *The increase in the minimum wage in 2010 was unprecedented*

Graph 1: Rate of change of unit labour costs, compensation per employee, labour productivity



Source: Commission services (Eurostat)

Graph 2: Gross minimum wage and number of minimum-wage recipients



*The lowest amount set in the legislation
Source: The Institute of Macroeconomic Analysis and Development (2012)

■ *The coverage of the minimum wage more than doubled*

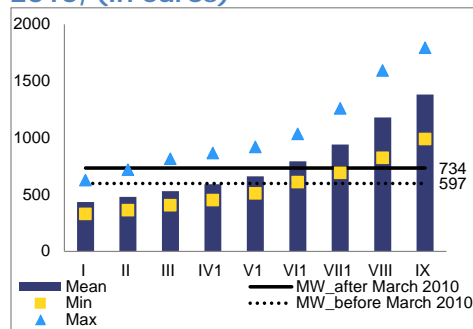
The hike in the minimum wage strongly increased the number of minimum-wage recipients. The number of workers at the minimum wage immediately jumped from 17,500 to 43,300 (Graph 2). In 2012Q2, 6.2% of full time employees were paid the minimum wage.³

■ *The minimum wage exceeds basic wages set by social partners in sectoral collective agreements even for more demanding tasks*

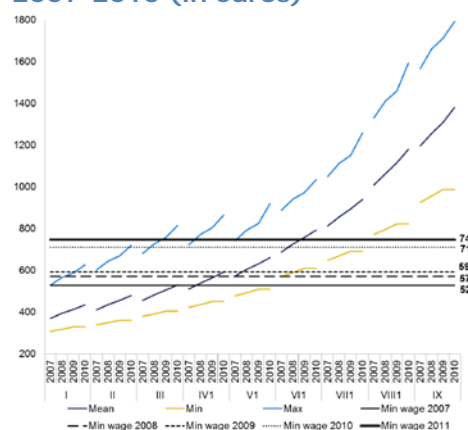
The minimum wage is well above the basic wages negotiated by the social partners in some sectoral collective agreements, even for more demanding tasks. Graph 3 provides information about basic wages negotiated in sectoral collective agreements in 2010 for different tariff classes spanning from I (simple tasks) to IX (outstandingly important tasks). Before the increase of the minimum wage in March 2010, the minimum wage was higher than basic wages agreed in tariff class I (in all sectoral collective agreements) and even in higher tariff classes. The increase in the minimum wage in 2010 became even more binding. All collectively-agreed basic wages in tariff class II (less demanding tasks) lost their relevance, including some basic wages negotiated in tariff classes VII (very demanding tasks) and VIII (highly demanding tasks).

Over the period 2007-2010, upward adjustments of the minimum wage were higher than adjustments of basic wages in sectoral collective agreements. In this period, the minimum wage increased by 34% (183 euros), i.e. twice as fast as average basic wages in sectoral collective agreements, regardless of the tariff class (Graph 4). In absolute terms, the increase in basic wages was on average higher only in tariff class IX (185 euros), while increases in basic wages were on average significantly more modest in tariff classes I to VI (80 euros on average).

Graph 3: Negotiated wages in sectoral collective agreements, 2010, (in euros)



Graph 4: Negotiated wages in sectoral collective agreements, 2007-2010 (in euros)



Graphs 3 and 4 provide information on basic wages negotiated in sectoral collective agreements in 2010 for different tariff classes spanning from I (simple tasks) to IX (outstandingly important tasks). For each tariff class, there is a distribution of basic wages across sectors with the graphs showing the lowest basic wage (Min), the highest basic wage (Max) and the average basic wage (Mean).

The average monthly wage in Graph 4 is calculated as the weighted average depending on the time of the change in the minimum wage. For example, the minimum wage of EUR 711 in 2010 is calculated as the weighted average of EUR 597 (before the increase of the minimum wage in March 2010) and EUR 734 (after the increase of the minimum wage).

Source: Commission services; Association of Employers of Slovenia, Ministry of Labour

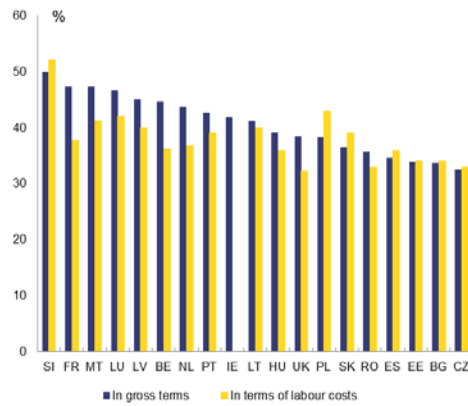
Slovenia is among the EU countries with the most costly minimum-wage workers compared to average wage workers measured in terms of either labour costs (gross wage + social security contributions paid by employers) or gross wages (Graph 5). In absolute values, however, the net income that minimum-wage workers take home is much below the labour costs of employing them (Graph 6), thus suggesting a relatively high tax wedge at the bottom of the wage distribution. Indeed, the tax wedge at the minimum wage is not much different from the tax wedge at the average wage (Graph 7). It is lower due to income tax rebates, while social security contributions at the minimum wage are, in relative terms, as high as at the average wage (Graph 8).

The literature on the impact of the minimum wage on employment and wage growth is scarce in Slovenia. According to Brezigar-Masten et al. (2010), the increase in the minimum wage in 2010 was estimated to reduce employment by 5150 workers in the short run and by 17,170 workers in the long run.⁴ In addition, the increase in the minimum wage is estimated to have contributed at least 2.1 pps. to growth in gross wages in 2010. An additional 0.4 to 0.9 pp. of growth in gross wages is attributed to wage pressure just above the minimum wage in the sectors with the highest share of minimum-wage workers. The size of the wage pressures would increase if all sectors were taken into account.

Increases in the minimum wage can boost employment/participation rates if financial incentives to take up work either from unemployment or inactivity are low. Graphs 9 and 10 illustrate the financial incentives of the unemployed (eligible for unemployment benefits) and the inactive (eligible for social assistance) to take up minimum-wage jobs. Despite the increase in the minimum wage in 2010, unemployment traps remained at very high levels for all households, i.e. between 77% and 94%. This means that, by taking minimum wage jobs, between 77% and 94% of additional earnings, depending on the household type, are taxed away due to higher taxes and benefits withdrawals. The increase in the minimum wage has also not substantially reduced inactivity traps for households with children.

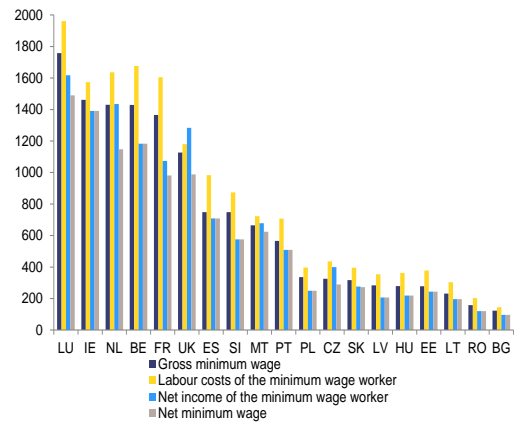
- *Labour costs of employing minimum wage workers tend to discourage labour demand, to some extent also due to high tax wedge*
- *The minimum wage is expected to reduce employment and cost competitiveness*
- *Despite the increase in the minimum wage, financial incentives to take up work from unemployment remain low*

Graph 5: Costs of the minimum wage worker compared to the average wage worker, 2011



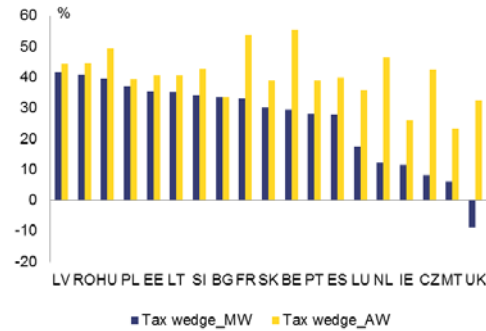
Source: Commission services (wages in gross terms); Commission services; Joint European Commission-OECD project, using OECD Tax-Benefits models (labour costs)

Graph 6: Different measures of the minimum wage, 2011 (in euros)



Source: Commission services (Eurostat); Joint European Commission-OECD project, using OECD Tax-Benefits models

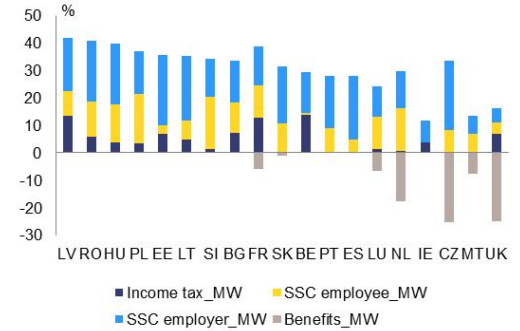
Graph 7: Tax wedge at minimum wage and average wage, 2011 (% of labour costs)



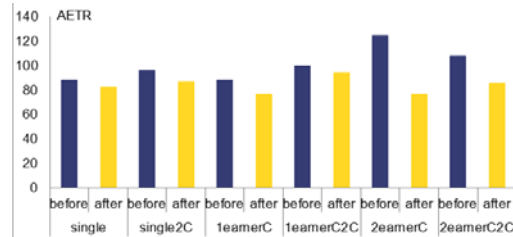
MW=minimum wage; AW=average wage; SSC=social security contributions; Benefits = social assistance + housing benefits + in-work benefits.

Source: Commission services (Eurostat); Joint European Commission-OECD project, using OECD Tax-Benefits models

Graph 8: Tax wedge at the minimum wage, 2011 (% of labour costs)



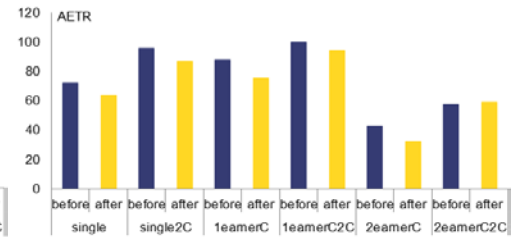
Graph 9: Unemployment trap before & after the minimum wage increase, 2010



Single: single-person household; Single2C: single parent with two children; 1earnerC: one-earner couple; 1earnerC2C: one-earner couple with two children; 2earnerC: two-earner couple; 2earnerC2C: two-earner couple with two children. Earners in all households are assumed to earn the minimum wage. AETR: average effective tax rate

Source: Commission services (Eurostat); Joint European Commission-OECD project, using OECD Tax-Benefits models

Graph 10: Inactivity trap before & after the minimum wage increase, 2010



The minimum wage and poverty concerns

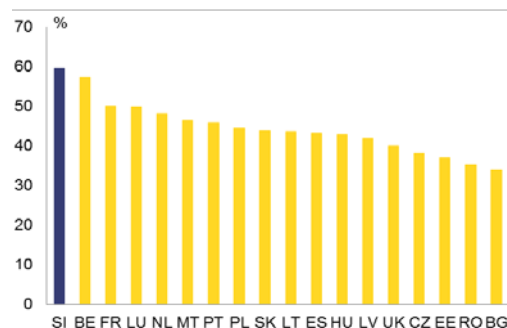
From the workers' perspective, what matters is the take-home pay. In 2010, the net minimum wage increased by 22% to 562 euros. The objective of this increase was to equalise the net minimum wage with the level of the estimated minimum living costs in 2009 - as calculated by the Institute for Economic Research in Ljubljana - and thereby reduce risks of in-work poverty.⁵

The minimum wage can be used to reduce wage inequality between the bottom and the middle of the wage distribution.⁶ Following the increase of the minimum wage in 2010, the net minimum wage as a % of net average wage became among the highest in the EU (at about

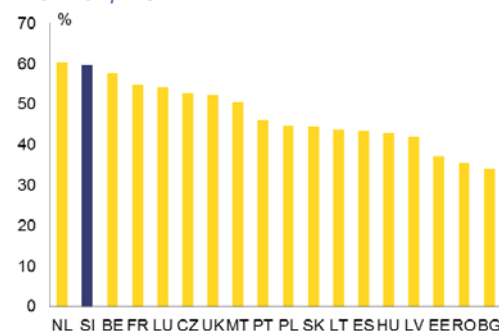
■ *The purchasing power of minimum wage workers is relatively high*

60%, Graph 11). Taking into account other transfers (social assistance and housing benefits), which workers also can receive, allows a comparison of the net income of the minimum wage worker with the net income of the average wage worker. This comparison confirms a relatively high purchasing power of minimum wage workers (Graph 12).

Graph 11: Net minimum wage as a % of net average wage, 2011



Graph 12: Net income of the minimum wage worker as % of net income of the average wage worker, 2011



Source: Commission services; Joint European Commission-OECD project, using OECD Tax-Benefits models, Eurostat

■ *Is the minimum wage an efficient tool to fight the risk of in-work poverty?*

■ (1) *The minimum wage reduces in-work poverty of individuals but not necessarily of households*

■ (2) *The minimum wage may fail to reduce in-work poverty if poorly targeted*

■ (3) *The minimum wage may have large efficiency costs...*

■ *... in particular if the aim is to set the minimum wage at a relatively high poverty threshold, e.g. in case of relatively equal income distribution*

However, the relevant question is whether the minimum wage is the right tool to address in-work poverty.

The minimum wage can reduce the poverty risk of individual workers while the poverty concept is based on household income. Thus, the minimum wage may still keep workers in poverty once the income of the whole household is taken into account. Graph 13 compares the net equivalised income of six hypothetical households (which are composed of only minimum wage workers) with the at-risk-of-poverty threshold (measured as 60% of national median equivalised disposable income after social transfers). Before the increase of the minimum wage in 2010, all hypothetical households were considered at-risk-of-poverty according to the measure of relative poverty, i.e. their net equivalised incomes were below the poverty threshold. After the increase in the minimum wage, two-earner couples were no longer at-risk-of-poverty. However, couples with only one adult earning the minimum wage remained well below the at-risk-of-poverty threshold.

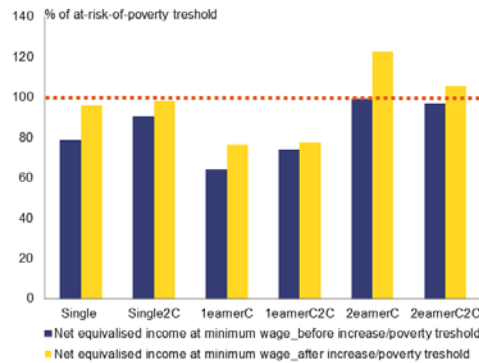
Apart from Slovenia, in more than one third of EU Member States that set statutory minimum wages, the net income of single minimum-wage workers (without children) did not reach the at-risk-of-poverty threshold in 2011 (Graph 14).

The minimum wage may fail to reduce in-work poverty if minimum-wage workers live in households that are already above poverty thresholds.⁷ The empirical literature shows that the minimum-wage workers often live in households where other family members are working and the minimum-wage workers are second or third earners in a family.⁸

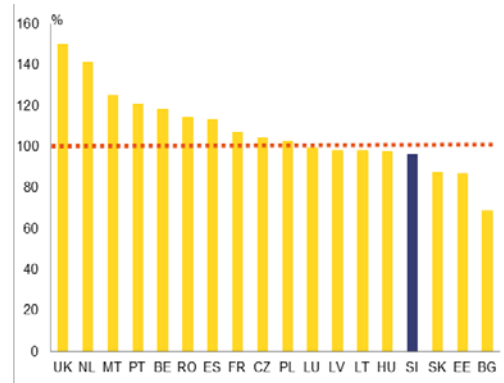
The minimum wage can have large efficiency costs if it is set too high. While the minimum wage may increase probability of working-poor households escaping poverty, it may also increase the probability of non-poor households entering poverty due to a decline in employment and hours worked. Since the risk of poverty is higher among the unemployed (45% of unemployed persons are at risk of poverty in Slovenia, Graph 21), an excessive increase in the minimum wage, which aims to reduce in-work poverty but actually raises unemployment, may even contribute to the risk of overall poverty.⁹

The relatively equal income distribution in Slovenia poses another problem for using the minimum wage to address risks of in-work poverty (Graph 15). A comparison of the mean (average) and the median (separating the higher from the lower half of the group) equivalised disposable income reveals that the median income is relatively high in Slovenia as it is close to the mean income (Graph 16), while the mean income does not appear to be low (Graph 17). A relatively high median income and a correspondingly relatively high at-risk-of-poverty threshold together pose a risk of setting the minimum wage too high if the former is used as a benchmark for setting the minimum wage.

Graph 13: Equivalised net income of households with minimum wage workers, before & after the minimum wage increase, 2010

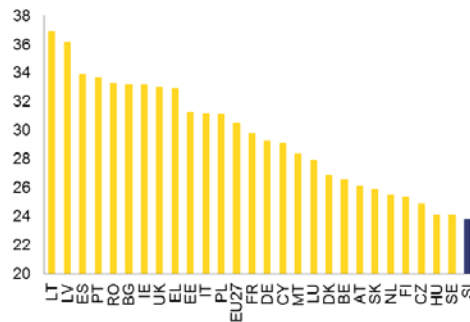


Graph 14: Net income of the minimum wage worker as a % of at-risk-of-poverty threshold, 2011



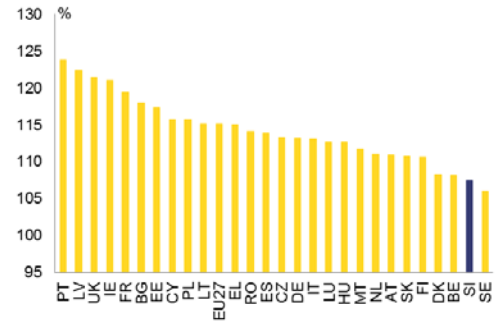
See Graphs 9 and 10 for household categories. 100 means that the equivalised net income of households is equal to the at-risk-of-poverty threshold (7042 EUR in 2010 in Graph 13 and 7199 EUR in 2011 in Graph 14). At-risk-of-poverty threshold = 60% of the national median equivalised disposable income after social transfers
 Source: Commission services(Eurostat); Joint European Commission-OECD project, using OECD Tax-Benefits models

Graph 15: Gini coefficient, 2010

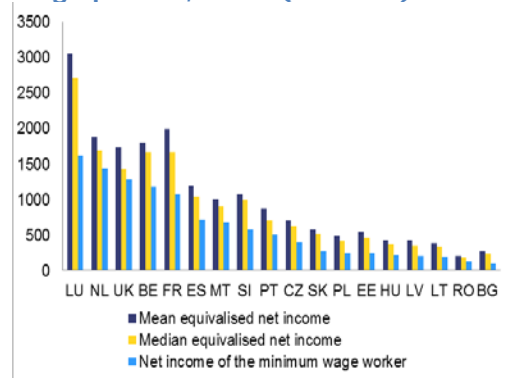


Source: Commission services (Eurostat)

Graph 16: Mean as a % of median equivalised disposable income, 2011

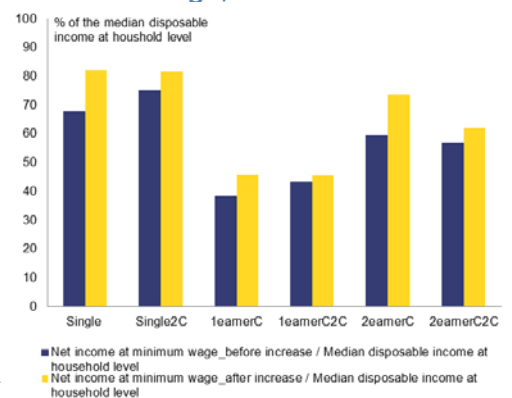


Graph 17: Mean and median equivalised disposable income, and the net income of the minimum wage person, 2011 (in euros)



Source: Commission services(Eurostat); Joint European Commission-OECD project, using OECD Tax-Benefits models

Graph 18: Net income of households with minimum wage workers, before and after the increase in the minimum wage, 2010



■ Risk of in-work poverty is low, including among low-educated earners

Despite a relatively high at-risk-of-poverty threshold, the in-work at-risk-of-poverty rate is low in comparative terms, including among those employed persons with basic education (Graphs 19-20). In 2011, 6% of employed persons were at-risk-of-poverty in Slovenia, which is well below the EU average, but 1.4 pps higher than in 2005. The at-risk-of-poverty rate was almost twice as high for employed persons with primary education (which could be used as a proxy for low paid workers); however, it stayed considerably below the EU average and below the EU median.

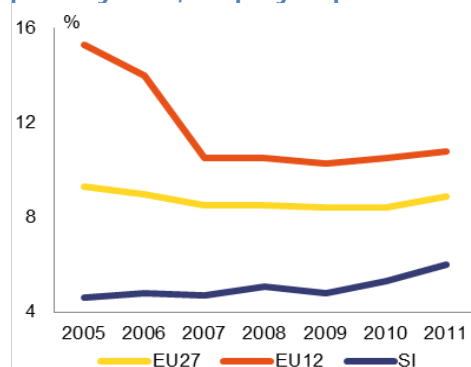
When interpreting these results, it is useful to bear in mind that the at-risk-of-poverty rate does

- *Working households, even if at-risk-of-poverty, may still fare better than other households*

not measure wealth or poverty, but rather low income in comparison to other residents in that country, which does not necessarily imply a low standard of living.

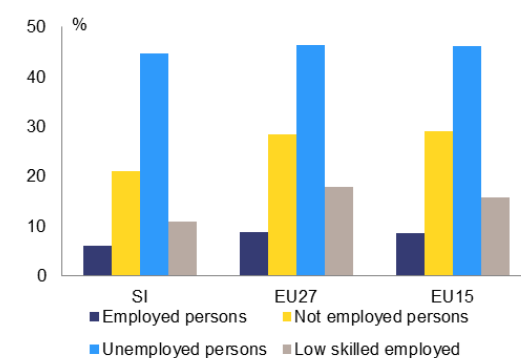
Even if at-risk-of-poverty, working households can still fare better than non-working households. To this end, the position of households with minimum wage workers in the income distribution of equally-sized households is examined. Specifically, the net income of six hypothetical households (which include minimum-wage workers only) is compared with the median household-specific disposable income (Graph 18) and household-specific poverty thresholds (defined as 60% of the median household-specific disposable income). A single person earning the minimum wage received almost 70% of the median disposable income of single-person households before the increase of the minimum wage in 2010 and above 80% afterwards. Therefore, single minimum-wage workers were not considered to be relatively poor compared to other single-person households either before or after the increase in the minimum wage.

Graph 19: In-work at-risk-of-poverty rate, employed persons



Source: Commission services (Eurostat)

Graph 20: At-risk-of-poverty rate, 2011



Conclusions

The increase in the minimum wage in 2010 was unprecedented. The minimum wage was set above the basic wages agreed in collective agreements by the social partners even for more demanding tasks. As a result, its coverage more than doubled and its level relative to the average wage (in terms of either labour costs or the gross wage) is now among the highest in the EU. The tax wedge and, in particular, social security contributions are relevant components of labour costs at the minimum wage.

The large increase in the minimum wage in 2010 and automatic yearly indexation may exert negative effects on employment. In addition, high labour costs of employing minimum wage workers could reduce the attractiveness of Slovenia as a production location. The positive impact of the minimum wage on decisions of non-employed persons to take up jobs or to search for jobs more intensively is expected to be limited as financial incentives remain low.

In the future, the minimum wage may generate strong wage pressures once the economic recovery gains momentum. A strong compression of the wage distribution following the increase in the minimum wage suggests that significant wage pressures will emerge at the bottom of the wage distribution in order to re-establish wage differentials once the economy starts recovering. In a monetary union, excessive wage developments are translated into losses of price competitiveness if profit margins remain unchanged.

Strikingly, however, this Country Focus also showed that the net income of single minimum-wage earners remains below the at-risk of poverty threshold, even after the minimum wage hike in 2010. In addition, the net income of certain hypothetical households containing minimum-wage workers (e.g. one-earner couples) is not sufficient to reach the at-risk of poverty threshold.

Nevertheless, the at-risk-of-poverty rate among the employed is low in comparative terms, including among workers with primary education, who tend to be low-paid workers. In addition, the purchasing power of minimum-wage earners compared to average wage earners is among the highest in the EU.

How can these results that appear contradictory at first sight be reconciled? The relatively low at-risk-of-poverty rate among the employed, including those with low education, could stem

from a relatively low incidence of low-paid workers in poverty, i.e. low-paid workers live already in non-poor households. In addition, the very high purchasing power of minimum-wage workers compared to average wage workers, which is still insufficient to reach the at-risk-of-poverty threshold, could be explained by an unusually high at-risk-of-poverty threshold stemming from the relatively equal income distribution in Slovenia.

This Country Focus also shows that, apart from poor targeting (i.e. failing to reach low-paid workers in poverty), the minimum wage can play a limited role in helping certain poor households out of poverty (one-earner couples), suggesting that other well-targeted and means-tested policy instruments could offer better alternatives. In addition, even if at-risk-of-poverty, working households can still fare better than non-working households, which cannot benefit from minimum wage increases.

Finally, the minimum wage can even prove counterproductive if it is set so high that efficiency costs become large. While the minimum wage may increase the probability of working-poor households escaping poverty, it may also increase the probability of non-poor households entering poverty due to a loss in employment or a decline in hours worked. As the main reason for poverty is unemployment (45% of unemployed persons are at the risk of poverty in Slovenia), an excessive increase in the minimum wage, which aims to reduce in-work poverty but actually raises unemployment, may even contribute to the risk of poverty.

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¹ In this context, in 1989, the EU adopted the Community Charter of the Fundamental Social Rights for Workers that enshrines the principle that every job must be paid a fair remuneration, i.e. a wage sufficient to achieve a decent standard of living.

² See Acemoglu, D. and S. Pischke, 2003 and European Commission, 2012.

³ No comparable data exist for other EU countries.

⁴ As a comparison, in last two years up to 2012Q3, the number of unemployed increased by about 20,000 (to 93,000) according to the Labour Force Survey. The number of persons in registered unemployment has increased by about 10,400 to 110,900 since 2010.

⁵ The estimated minimum living costs by the IER are slightly below the level of the at-risk-of-poverty threshold, which is provided by Eurostat and used for the calculation of the at-risk-of-poverty rate. According to the Eurostat methodology, the at-risk-of-poverty threshold was estimated at 593 euros per month in 2009, 587 euros in 2010 and 600 euros in 2011.

⁶ See e.g. Dickens, R., and A. Manning, 2002.

⁷ See OECD, 1998.

⁸ The empirical literature mainly analyses minimum wage workers in the US. A paper by Rycx and Kampelmann (2012) provides an analysis of the minimum wage in nine European countries using micro data. The findings suggest that minimum wage workers live in larger households and face a higher poverty risk. However, poverty risks are likely overestimated as no distinction is made between full and part time minimum wage workers. The results could thus be driven partly by low work intensity rather than a low minimum wage.

⁹ See e.g. Neumark, D., M. Schweitzer, and W. Wascher, 2005.