Learn more about the effects of inflation

The effects of inflation on real minimum wages

Figure 1 presents two situations with constant inflation and full indexation of minimum wages on the basis of past inflation. In country A, with an annual inflation rate of 10 per cent, the annual average of the real minimum wage is 95. At the beginning of the second year the application of full indexation results in a starting level of 100 and the constant inflation rate reproduces the erosion in the purchasing power, resulting in the same average real minimum wage of 95.

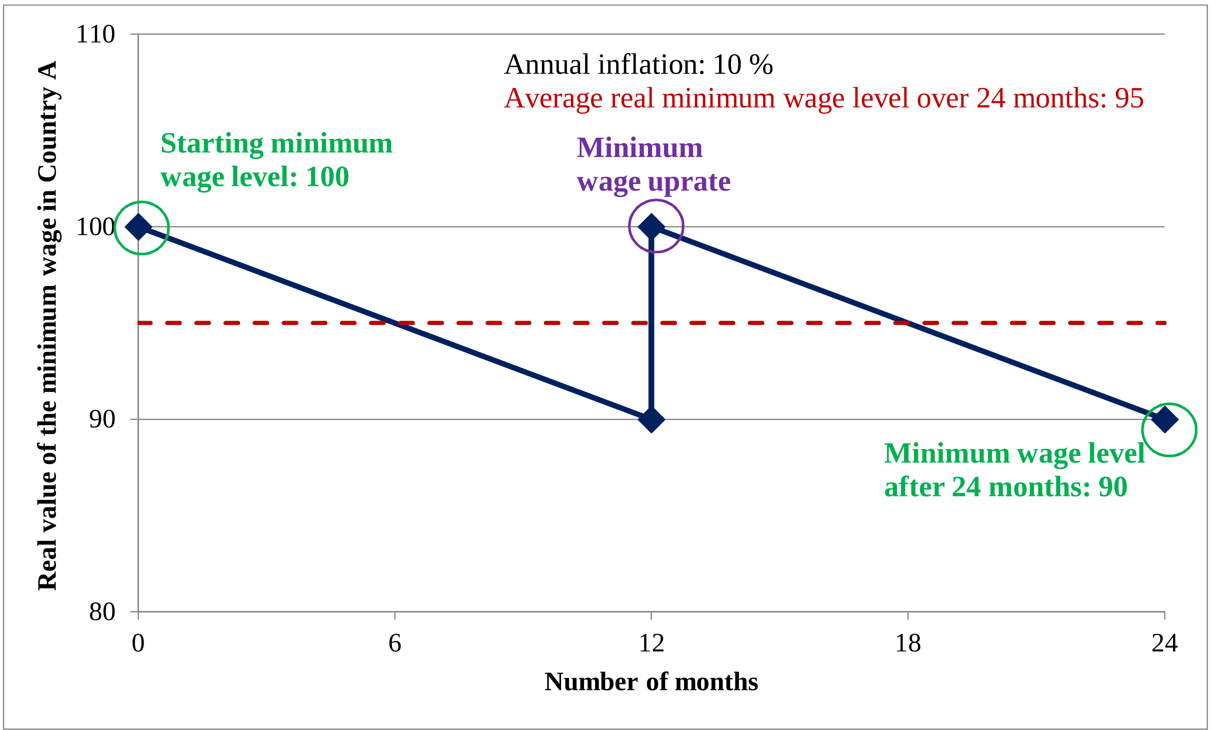
In country B, where the inflation rate is only 2 per cent per annum, the annual average real minimum wage is 99. Therefore, although this kind of indexation seeks to protect the purchasing power of minimum wages, the real minimum wage is affected by the inflation rate.

The faster inflation accelerates, the more the real minimum wage loses value.

Figure 2 illustrates this situation for a hypothetical country where the inflation rate goes from 5 per cent in year 1, to 10 per cent in year 2 and 15 per cent in year 3 (the intensity of the inflationary process is reflected in the slope of the curve in each of the years). Although the departing level is the same for each of the three years, the real minimum wage at the end of each period is smaller every year, as well as the resulting average real minimum wage level.

Figure 1. Two situations with constant inflation and fully indexed minimum wages

Country A: Constant inflation and full indexation to past inflation (annual inflation 10%)



Country B: Constant inflation and full indexation to past inflation (annual inflation 2%)

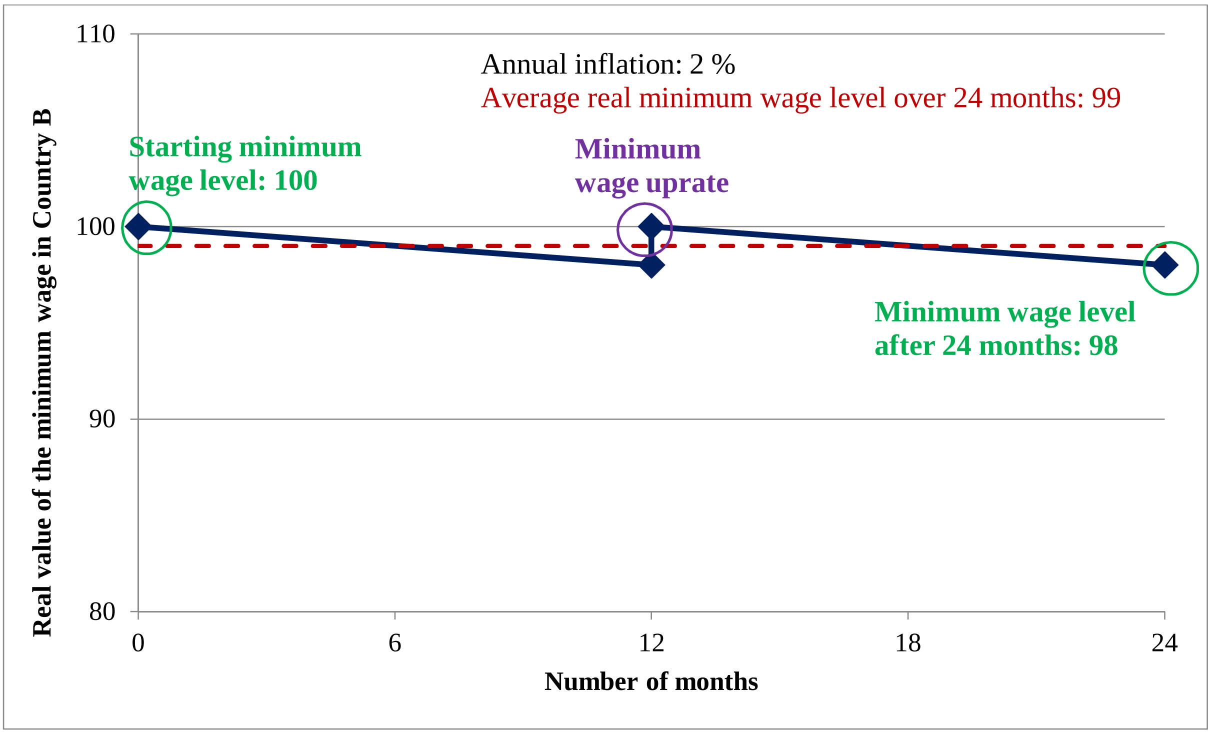
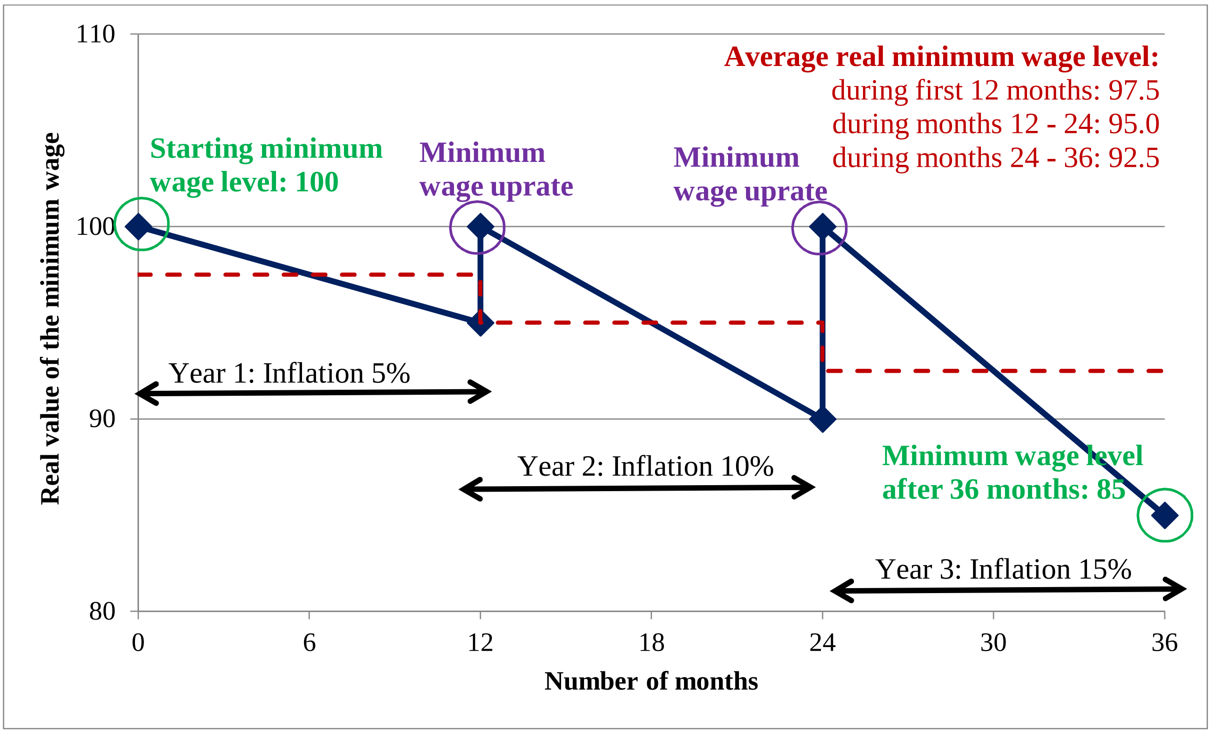


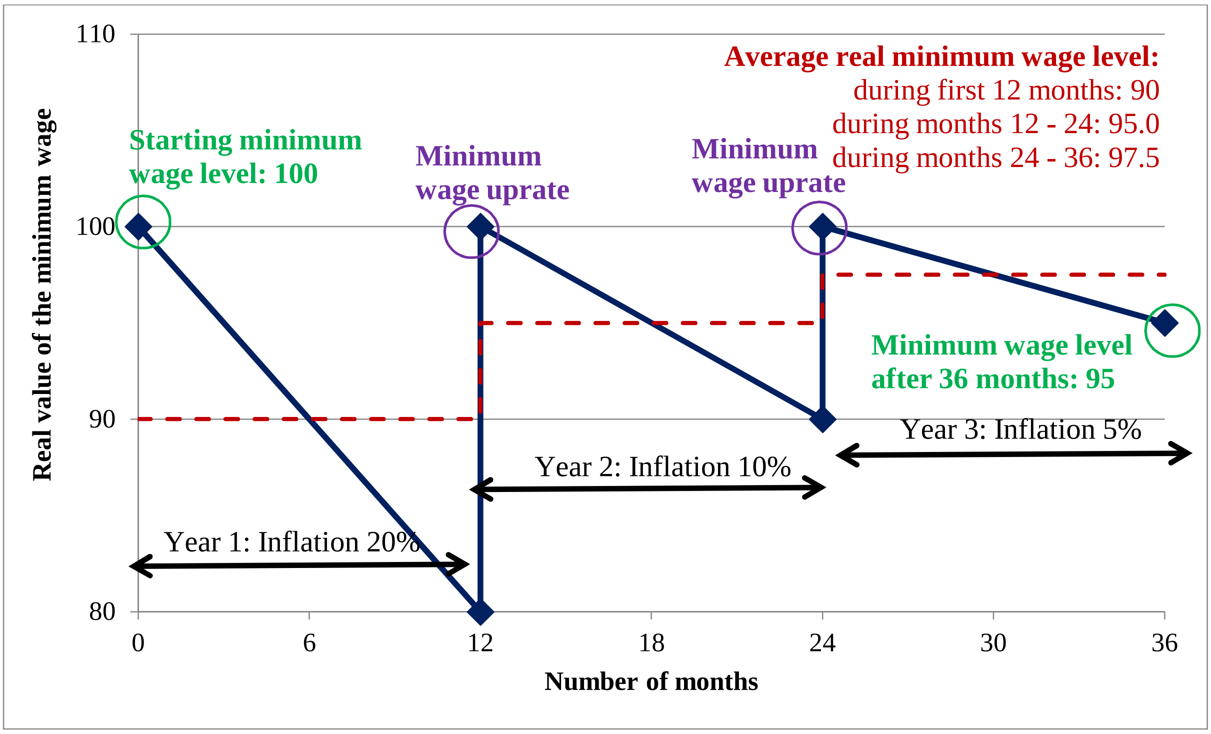
Figure 2. Accelerating inflation, minimum wage fully indexed to past inflation



By contrast, the application of full indexation to past inflation in a situation where the inflation rate is falling would result in real minimum wage increases. Figure 3 presents a situation where the inflation rate goes from 20 per cent in year 1 to 10 per cent in year 2 and 5 per cent in year 3. The reduction in the rate of inflation results in an improvement of the average real minimum wage in the successive years, even if indexation only recovers the initial level.

Hence, although full indexation to past inflation is implemented to protect the purchasing power of minimum wages, keeping inflation at low levels is still crucial to attain that objective.

Figure 3. Decelerating inflation, minimum wage fully indexed to past inflation



The Frequency of the Adjustment

In a context of inflation, the frequency of the adjustment matters too: the longer the period without adjustment, the higher the erosion in the real value of the minimum wage.

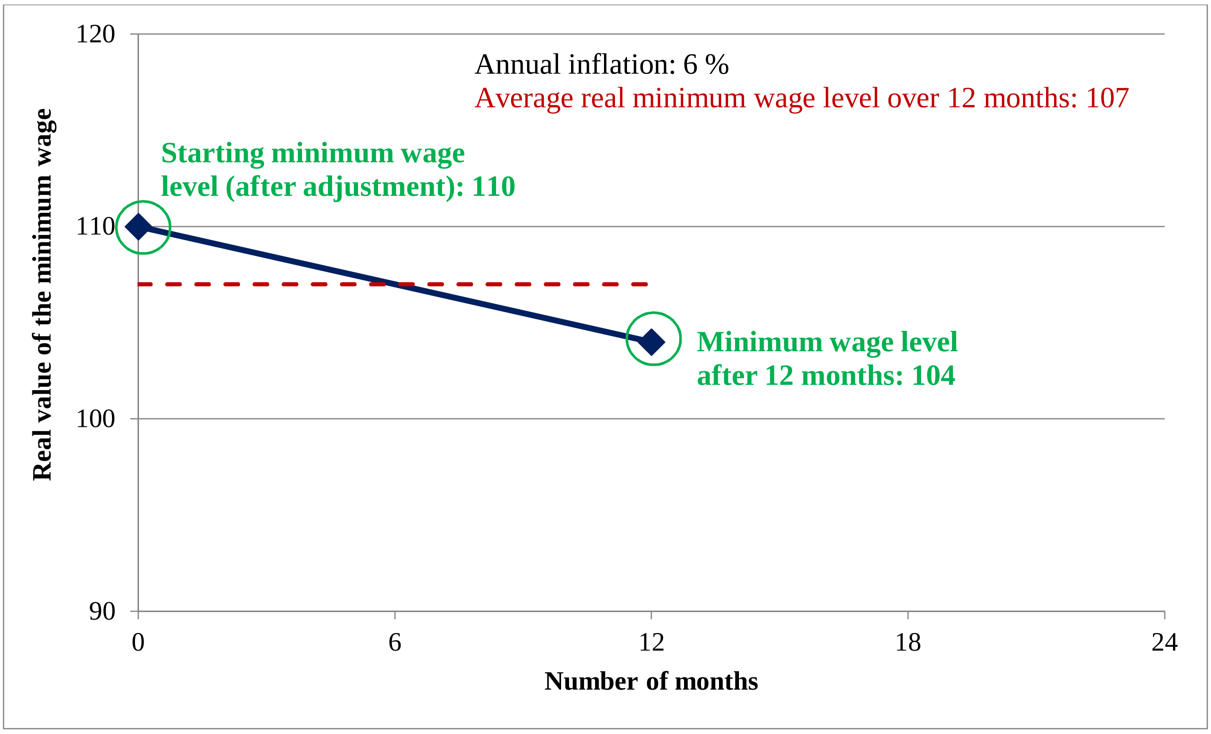
Let's take a hypothetical example of Country X where the social partners have just agreed to increase the minimum wage by 10 per cent. Of that rise, 9 per cent corresponded to past inflation accumulated during the previous 18 months, and the additional point corresponded to the other criteria considered. Assume that annual inflation is around 6 per cent.

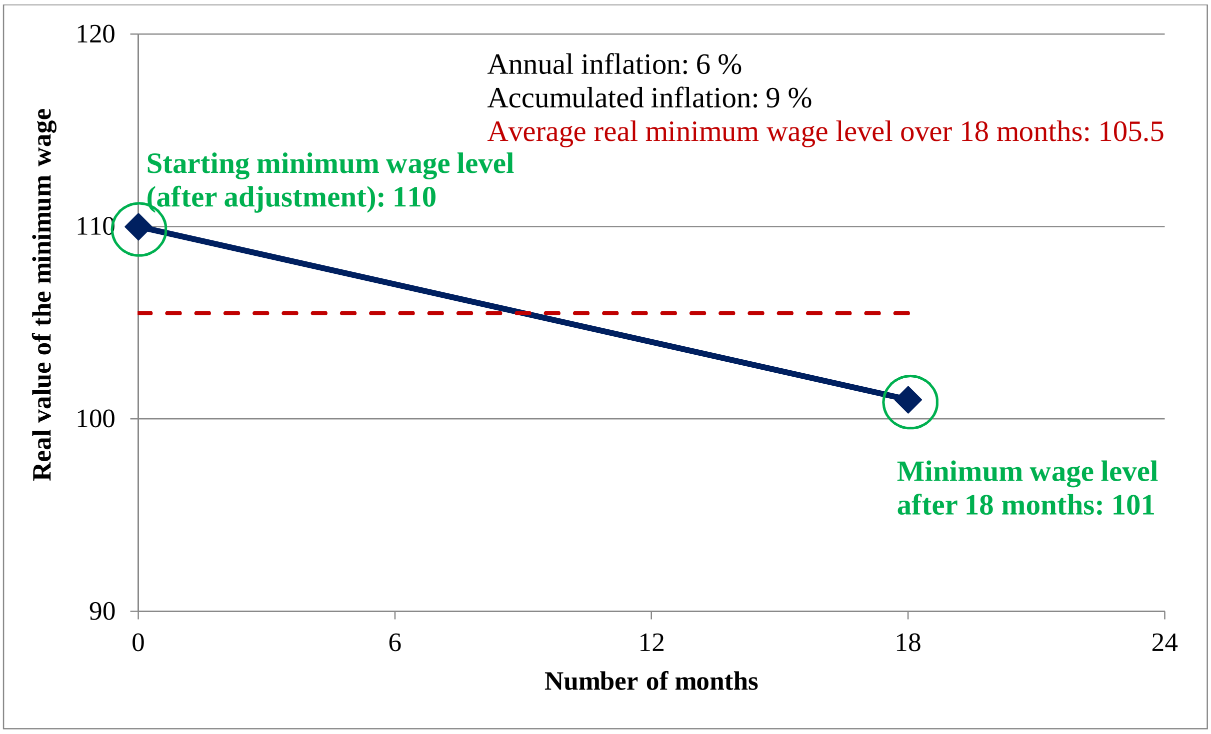
To simplify matters, we will consider that Country X's inflation rate remains stable at that same level in the coming months, and that economic performance is constant over the same period.

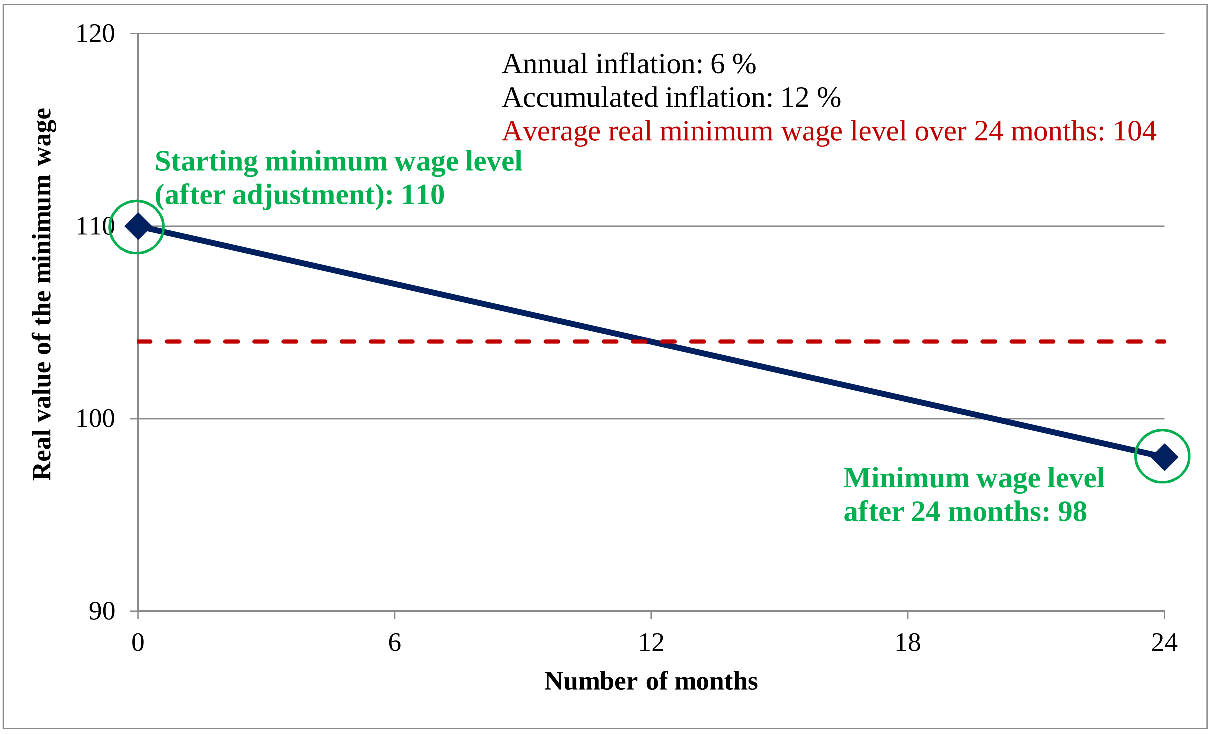
Country X adjusts minimum wages at irregular periods, which are not determined by any quantitative variable. This means that when the new minimum wage level is determined, the parties involved do not know the duration for which it will be applied.

What would be the result of the 10 per cent minimum wage adjustment if the period of application is 12 months, 18 months or 24 months? This is illustrated in Figure 4.

<u>Figure 4. The result of Country X's 10% minimum wage rise, 12 months, 18 months, 24 months</u>







If the new minimum wage level is applied during 12 months, the accumulated inflation during the period would have been 6 per cent. Compared to the real level prevailing just before the last adjustment, the real value at the end of the actual period would be 104, that is, four percentage points above the departing level.

However, if the minimum wage is applied during 18 months, the accumulated inflation would be 9 per cent and the real gain at the end of that period would be just one percentage point (101).

In the last case, the new minimum wage is applied during 24 months, during which the accumulated inflation is 12 per cent, and the real minimum wage ends at 98. In this case, at the end of the period, the minimum wage reflects a real loss of 2 percentage points.

The Country X example shows that the same minimum wage adjustment could result in a real gain, could be neutral, or could even result in a real loss, depending on the duration of application of the new minimum wage level. As the parties involved in determining the new level do not know its effective duration, they are taking into account only part of the decision – the other part remains in the hands of the body determining the timing of the next minimum wage adjustment.