How inflation challenges pensions

December 2022 http://www.oecd.org/pensions

Inflation has reached levels not seen in the last four decades in most OECD countries, hitting disproportionally the most vulnerable, low-income households. This policy brief discusses how high levels of price inflation challenge pensions. The role of minimum wages and of working-age benefits in the current inflation context are the focus of two other OECD policy briefs (OECD, 2022[1]; OECD, 2022[2]).

Key findings

- Although the situation differs greatly between countries, a general policy response to temporary high inflation should be to fully protect at least the most vulnerable pensioners. Some low-income pensioners are suffering and need an emergency response, which may include advancing scheduled updates of benefits.
- Indexation of benefits to changes in prices, wages, or to a mix of both, matter greatly for pensions. Such rules are widespread nowadays in OECD countries, which has improved the protection of pensioners against inflation.
- Currently, about two-thirds of OECD countries index their first-tier pensions in payment to at least price increases. About half of OECD countries adjust their mandatory earnings-related pensions in payment in line with price increases or better.
- The ongoing episode of high inflation reverses the standard way of thinking about pension indexation. In normal circumstances, wages grow faster than prices due to productivity gains, and many countries have shifted from wage to price indexation to limit pension expenditures. At least in the short term, due to falling real wages, price indexation has become a more favourable protection for pensioners than wage indexation, while being more costly than initially anticipated for public finance or pension providers more generally.
- Given aggregate losses driven by the negative terms-of-trade shock, it may be fair in times of economic and fiscal pressure that pensioners with retirement income above a certain threshold share some of the pain with the working-age population in terms of reduced benefit adjustments.
- Protecting all pensioners against high inflation is likely to be very costly. Depending on the fiscal space and national preferences, alternatives to full price adjustment for all include a combination of: a flat-rate payment; full adjustment up to a threshold; and, partial adjustment, potentially up to a cap beyond which no adjustment would apply.
- Going forward, the main questions for pension policy makers include: should pensions be adjusted in line with price inflation to avoid losses in purchasing power; should countries that index pensions to wages or to a mix of prices and wages deviate temporarily from the rule and adjust in line with price inflation; should countries that have a price indexation rule apply it fully?

Social impact of high inflation and deteriorating terms of trade

Prices have been climbing at a fast pace across the OECD, sharply accelerating in 2022, with inflation in several countries reaching levels not seen in 40 years or longer. While efforts are underway to curb inflationary pressures and support households, inflation has continued to increase in several countries and is expected to remain high albeit slowing down in 2023 (OECD, 2022[3]).

The current spike in inflation observed in most countries is the result of several factors. Broad-based inflation pressures were already apparent ahead of the recent commodity price surge. Indeed, excess demand, partly driven by the support measures taken to respond to the economic impact of COVID-19, has contributed to rising inflation. The pattern of price increases between mid-2020 and mid-2022 suggests that pandemic-related effects account for a sizeable share of the increase in headline inflation during that period (OECD, 2022[4]). Russia's war against Ukraine has led to a sharp increase in the price of some goods, leading to a change in relative prices and a further boost to the general price level.

The real economy may be insulated against general inflation trends thanks to indexation mechanisms. However, high current inflation rates are associated with deteriorating terms of trade in most OECD countries – but not all of them –, resulting in aggregate income losses. With such a background, fully adjusting benefits, including pensions, might create obstacles to fulfilling the objectives pursued by monetary and fiscal policies. Countries with significant trade surpluses may have more room to absorb reduced competitiveness, while countries with sound public finances have a greater capacity to support households through government transfers. If the response of wages and government transfers leads to spiralling additional price increases, then inflationary shocks become more persistent or "entrenched" (Checherita-Westphal, 2022[5]). Slowing price increases and reducing inflation expectations would then be painful for the economy and the whole population.

Yet, steep increases in the prices of energy and food are causing hardship for low-income people in particular, raising significant challenges for social policies. There are worrying reports of growing numbers of low-income families cutting back on essential expenditures. Indeed, the surge in food and energy prices has disproportionately affected lower-income households, whose spending shares on these items largely exceed those of high-income households by some 50% (OECD, 2022[4]). Low-income households also spend bigger parts of their incomes overall and their budgets are therefore hit harder with limited scope to tap into savings.

What is so special today about the way pensions adjust?

Pension indexation mechanisms are central to policy responses in periods of high inflation, including the current one. Indexation refers to how pensions in payment grow over time, i.e. increasing pensions automatically in line with the increase in prices, wages or any other chosen index. Rules determining the indexation of pensions in payment are widespread in OECD countries and are discussed below.

The current, ongoing, episode of high inflation reverses the standard way of thinking about pension indexation. As nominal wage increases have been lower than price inflation, real wages have been falling despite tight labour markets in many countries, real wages have been falling (see the joint OECD Policy Brief: Minimum wages in times of rising inflation). This in turn makes price indexation a more favourable protection than wage indexation, at least in the short term. It also means that price indexation may be more costly than anticipated, boosting pension spending as a share of GDP given that pension revenues tend to follow total wages. In short, high inflation turns the standard reasoning about price indexation upside down.

There are three main, interrelated questions in the current context:

- should countries adjust pensions in line with price inflation to avoid losses in purchasing power?
- should countries that index pensions to wages or to a mix of prices and wages deviate temporarily from the rule and ensure an adjustment in line with price inflation?
- should countries that have a price indexation rule apply it fully given the size of the change the rule generates in this period of high inflation and given the needed adjustment the overall economy has to go through?

Aggregate net losses in real terms raise the question of who should bear the cost. This exceptional situation puts the emphasis on sharing the burden of the adjustment as broadly as possible. Even though arguments for having automatic indexation as a norm are strong, it may be fair in times of economic and fiscal pressure that pensioners bear some of the pain with reduced benefit adjustments (Whitehouse, 2009[6]). The price adjustment of pensions above a certain threshold might therefore be difficult to justify.

Why indexation matters so much for pensions

Pension indexation matters given that it affects the income of a large and increasing number of older people and given the large size of pension expenditure as a share of GDP. Without indexation, benefit increases are subject to discretionary decisions by governments or pension authorities, implying that the value of a pension in payment depends on economic and political cycles. Indexation of pensions in payment was the first automatic adjustment mechanism used in the pension area (OECD, 2021[7]). In order to reduce uncertainty and improve social sustainability, Denmark started indexing pensions in payment to prices in 1933 and many OECD countries introduced price indexation from the 1960s. Indexation of pensions to average wages was first introduced in the Netherlands in 1956, followed by Germany the year after.

Periods of high inflation encouraged countries to introduce indexation mechanisms, in particular the period following the oil crisis in the 1970s (Hohnerlein, 2019[8]). For example, in the United States the price indexation of social security benefits, and thus pensions, was introduced in 1972. It is therefore not surprising that with current inflation concerns, the way pension systems account for inflation levels and inflation risks is back at the top of policy agenda.

Indexation of pensions is critical because these benefits are typically paid over a long period and are by and large the main income source for most pensioners. In the absence of indexation, the purchasing power of old-age benefits would gradually be eroded by inflation. If, for example, pension payments were to follow inflation minus 0.5% per year, pensioners would lose about 7% in real income after 15 years into retirement; the loss in the net present value of total pension payments during the full retirement period would also be equal to about 7%.

Beyond its direct impact, high inflation typically comes with large volatility and its associated uncertainty, which generates stress. In general, pensioners tend to have less flexibility to adjust to changing circumstances than younger people, who can work more or change consumption patterns more easily. Also, older people often want to avoid risks to a greater extent than younger groups. This means that pensioners are probably less able to deal with uncertainty and negative shocks affecting their real income. Indexing pension benefits to prices in particular has made it easier for retirees to live with inflation as this keeps their purchasing power constant. By accounting for inflation and removing the need for political agreement to maintain the purchasing power of pensioners, indexation has substantially reduced uncertainty through offering older people a predictable real income stream. All these reasons provide strong arguments supporting the indexation of pensions in payment, which explains the spread of indexation from only half-a-dozen OECD countries in the 1960s to virtually the whole of the OECD since several decades (Whitehouse, 2009[6]).

Current indexation rules

Almost all OECD countries have some form of indexation for the payment of old-age benefits. However, the rules vary both across countries and across schemes within countries. About two-thirds of OECD countries index their targeted, i.e. means-tested, old-age benefit to prices, while about half provides, based on the rules, protection against high inflation in their main mandatory earnings-related pension scheme.[1] This section shows the current indexation rules in the OECD and discusses some limitations in their enforcement. Table 1 provides the details for OECD countries by pension component and is further discussed below.

Table 1. Indexation of pensions in payment by component

	Targeted	Basic	Minimum pension	Mandatory earnings-related	
				Main scheme	***Complementary scheme***
Australia	Highest of prices or cost of living			FDC annuities	
Austria	Discretionary		Prices	Prices up to a threshold	
Belgium	Prices		Prices	Prices	
Canada	Prices	Prices		Prices[3]	
Chile	Prices		Prices	FDC annuities	
Colombia	Discretionary		Minimum wages	Prices	
Costa Rica	Wages		Wages	Prices	FDC annuities
Czech Republic	Prices	Wages	Partly to wages	50%w + 50%p	
Denmark	Wages	Wages		FDC annuities	FDC annuities
Estonia	80%wb + 20%p	80%wb + 20%p		80%wb + 20%p	
Finland	Prices			20%w + 80%p	
France	Prices		Prices	Prices	Frequent changes in rule
Germany	Wages			Wages[3]	
Greece	Prices	Prices		Prices	
Hungary	Prices		Discretionary	Prices	
Iceland	Prices	Highest of wages or cost of living		FDC annuities	
Ireland	Discretionary	Discretionary			
Israel	Prices	Prices		FDC annuities	
Italy	Prices		Prices	Prices up to a threshold	
Japan	Prices	prices[12]		Prices[1]	
Korea	Prices	Prices		Prices	
Latvia	Wages		Wages	80%wb + 20%p	FDC annuities
Lithuania	Prices	GDP		wb	
Luxembourg	Highest of prices or wages	Highest of prices or wages[3]	Highest of prices or wages[3]	Highest of prices or wages[3]	
Mexico	Prices	Prices	Prices	FDC annuities	
Netherlands	Minimum wage	Minimum wage		Prices[3]	
New Zealand	Prices and periodically net average wage	Prices and periodically net average wage			
Norway	50%w+50%p	50%w+50%p		50%w+50%p	FDC annuities
Poland	Prices		Prices + at least 20% real wages	Prices + at least 20% real wages	
Portugal	Prices[2]		Prices[2]	Prices up to a threshold	
Slovak Republic	Prices		Wages	Prices	
Slovenia	Wages		60%w + 40%p	60%w + 40%p	
Spain	At least equal to contributory pension increase		Prices	Prices	
Sweden	Prices			w – 1.6%[3]	FDC annuities
Switzerland	50%w+50%p		50%w+50%p	50%w+50%p	prices
Türkiye	Prices		Prices	Prices	
United Kingdom	Highest of prices, wages or 2.5%	Highest of prices, wages or 2.5%		FDC annuities	
United States	Prices			Prices	

1. Indexation is to wages until age 67. 2. Indexation is more favourable when real GDP growth exceeds 2%. 3. Exact indexation conditional on pension finances or on sustainability factor. Targeted components refer to means-tested schemes. Basic pensions can be residence-based or contribution-based; the amount of benefits may depend on the number of years of residence or contributions. Earnings-related benefits are computed depended on past wages. Minimum pensions refer to either the minimum of a specific contributory scheme or of all schemes combined.
Source: Updated information from OECD (2021[7]) *Pensions at a Glance 2021*, https://doi.org/10.1787/ca401ebd-en.

Price versus wage indexation

Despite the widespread existence of pension indexation rules nowadays, the adjustment of pension benefits remains an important policy issue. As discussed above, price indexation stabilises the purchasing power of retirees – at least to the extent that the price index used for the adjustment of pension benefits does not differ much from their cost of living. By contrast, wage indexation of pensions aims at maintaining the relative income position of pensioners throughout the retirement period.

In normal times, wages grow in real terms, i.e. nominal wages grow faster than prices, fuelled by productivity growth. This means that for a given level of pension benefit at the moment of retirement, total pensions received during the retirement period tend to be much higher under wage than under price indexation. Wage indexation thus allows pensioners to benefit from productivity gains and an increase of living standards over time. For example, based on the assumptions included in the OECD pension model, a person who retired at age 65 has at age 80 a benefit that is 20% higher with wage compared to price indexation assuming the same initial level.

In theory, and in the long term, for countries targeting a certain level of total pension spending, there is a trade-off between higher pensions at the moment of retirement and more generous indexation during the retirement period. If price indexation is applied, the initial benefit in payment can be set at a higher level, because, over the retirement period, adjustment to prices costs less than adjustment to wages. Due to the higher initial benefit when retiring, a lower level of indexation generates higher pensions in the first part of the retirement period and benefits those pensioners who have lower life expectancies. Longer living retirees, by contrast, will see their benefits fall more over time relative to their level under wage indexation. Hence, while there is no a priori better indexation schedule, the indexation rule should be the result of a political choice that takes this trade-off into account and balances income adequacy and financial cost.[2]

In practice, with population ageing resulting in increasing concern about the financial sustainability of pension systems, several countries have been adjusting their pension indexation rules to generate savings. Many countries have shifted to less favourable (in normal times) indexation rules for retirees (OECD, 2021[7]). Some countries that were previously at least partially indexing pensions to wages moved to price indexation, or increased the weight of price in the index; others made indexation of pension benefits conditional on economic metrics, such as the growth in the total wage bill or GDP. In this way, indexation takes into account changes in the size of the working population. Only a few countries made pension indexation more generous, including the Czech Republic, which increased the weight of wages in the index. Among them, the United Kingdom is an outlier with the triple-lock rule (see below).

Targeted schemes

All OECD countries have targeted schemes in which the benefit level depends on incomes from other sources and possibly assets, although the degree of targeting varies greatly across countries. More than half of OECD countries index these safety-net benefits to prices or to the cost of living (Table 2), while Luxembourg, New Zealand and the United Kingdom index at least to prices. For example, in the United Kingdom, the triple lock, which is the largest of price inflation, wage growth or 2.5%, is used for both the targeted scheme and the contribution-based basic pension. As a result, pensions increased by 2.5% in 2021 despite low inflation and negative wage growth. With the easing of COVID-19 restrictions wages increased by around 8% during 2021. As pensions were protected prior to the pandemic the triple lock was suspended for 2022 with pensions increasing in line with inflation (3.1%) rather than with wage growth. The triple lock will apply again for 2023 with an expected increase of around 10%.

About one-third of OECD countries use other indices, such as wages which tend to generate greater increases over time as discussed above. In current exceptional circumstances, as prices increase faster than wages, wage indexation or a mix of prices and wages may result in real income losses and raise poverty risks for people with low income. Only Austria, Colombia and Ireland have no indexation rule,

thereby adjusting the value of the old-age safety net discretionarily. In Ireland, following the Pension Commission's recommendations, a wage indexation rule that will apply to both the old-age safety net and the basic pension will be introduced in 2023.

Basic pensions

Basic pensions can take two different forms: a residence-based benefit or a benefit that is only available to those who contributed during their career. Residence-based basic pensions exist in nine OECD countries, and nine other OECD countries provide contribution-based basic pensions, except Israel, which has both a residence- and a contribution-based scheme (OECD, 2021[7]). Among these 17 countries (Table 2), six have a price indexation rule (Canada, Greece, Israel, Japan, Korea and Mexico) and four index at least to prices (Iceland, Luxembourg, New Zealand and the United Kingdom) (Table 2).

Table 2. Number of countries by ways of indexing pensions in payment, by component

	Targeted	Basic	Minimum pension	Mandatory earnings-related	
				Main scheme	Complementary scheme
TOTAL	***38***	***17***	***19***	***36***	***7***
Prices	22	6	9	12	1
Prices or better	3	4	2	2	
Prices up to a threshold				3	
Prices, conditional on pension finances				2	
Other index	11	7	7	10	
Discretionary[1]	2	0	1	7	6

1. This includes countries with funded defined contributions schemes where the retiree typically has several pay-out options.
Source: Table 1.

Minimum contributory pensions

Among the 19 OECD countries which have a minimum contributory pension within their contributory scheme, nine use price indexation to adjust the benefit level over time (Table 1). Luxembourg and Poland upgrade at least with price inflation (see below).

Mandatory earnings-related pensions

Price indexation is the most common way to adjust mandatory pensions in payment in the OECD (Table 1) About half of OECD countries opt for price indexation for their main mandatory earnings-related pension scheme:

- Twelve countries have a pure price indexation;
- Canada and the Netherlands condition the full price indexation on a balancing mechanism based on the assessment of pension finances (OECD, 2021[7]);
- Austria, Italy and Portugal index pensions to prices up to a threshold, hence for the lowest and intermediate pensions only.[3] These thresholds, above which gross pensions are indexed by less than price inflation, are equal to 28%, 79% and 51% of the gross average wage in Austria, Italy and Portugal, respectively.

In addition, Luxembourg indexes to the highest of price inflation and wage growth, while Poland adds on top of price indexation a share of real-wage growth, if positive.

Ten countries index benefits with a mix of price inflation, wage, wage-bill or GDP growth. This includes Germany and Sweden that have an additional balancing mechanism (OECD, 2021[7]). For its notional defined contributions pensions, Sweden use wage growth minus a fixed rate of 1.6%; until 2020 the indexation to wages minus 1.6% has produced an indexation slightly above prices on average. Finally, seven countries have a funded defined contribution scheme as their main mandatory pensions. In this case, indexation may apply, but it typically depends on the choice made by retirees on whether to purchase an annuity, and if an annuity is purchased on whether it is price indexed.

Enforcement of the rules

As with other automatic adjustment mechanisms, policy makers typically maintain the power to change the indexation rule if they no longer deem its outcomes desirable. However, frequent changes to the indexation rule defeat one main purpose of the mechanism, i.e. to improve predictability and diminish uncertainty about preserving purchasing power. Hence, it is important to strike the right balance: ensuring stability while keeping the possibility to adjust the rules when conditions change markedly.

A rule does not mean that there is a legal obligation to stick to the planned indexation. These rules are thus applied more or less strictly depending on countries. According to Chcecherita-Westphal (2022[5]), in Austria, Estonia, and France, government decisions may result in deviations from the indexation formula. In the United States, as in many countries, the indexation of social security benefits can always be over-ridden by legislators. Fischer (1982[9]) nevertheless highlighted that indexation has improved the inflation protection afforded by social security as the establishment of formal indexation reduces the likelihood that Congress will accept a fall in the real value of benefits.

In practice, the political cycle might influence deviations from the rules; before elections, for example, pensions might be increased by more than implied by the rules. The economic cycle also sometimes leads to the suspension of indexation rules, in particular to deal with financial pressure in a low-growth or crisis environment. Limiting pension increases thus generates a pro-cyclical response that amplifies cyclical effects.

There have indeed been frequent changes in pension indexation rules over time ((Whitehouse, 2009[6]) and (OECD, 2021[7])). Indexation rules were often over-ridden in the 1980s and 1990s. For example, indexation was suspended at some points in Belgium, Italy, New Zealand, Spain and the United States, despite the fact that indexation was written into the law in all these cases.

Upward discretionary adjustments have been frequent for example in Mexico and Türkiye, whereas some countries have increased pensions by less than stipulated by the indexation rule during and after the global financial crisis in order to reduce fiscal pressure. In Greece, pensions in payment were frozen between 2011 and 2022, and the government announced that a substantial increase will take place in 2023. In Portugal, between 2011 and 2015, the indexation rules introduced in 2007 were suspended with the exception of those applying to the lowest pensions; on average between 2000 and 2018, earnings-related pensions were indexed by inflation minus 0.4 percentage points (OECD, 2019[10]). In Slovenia, between 2012 and 2015, the benefits were not indexed at all as the fiscal situation was tight, but this was offset by extraordinary pension increases in 2019 and 2020 (OECD, 2022[11]). Spain reintroduced price indexation of pensions in payment in 2021, thus reversing the 2013 reform that led to less than price adjustments to deal with the impact of ageing on financial sustainability. In France, in order to improve financial sustainability, the date (month) of the pension adjustment within the year has been delayed several times, leading to sub-indexation; this has for example resulted in pensions in payment of the main mandatory scheme being effectively frozen in 2018 despite the existing price-indexation rule. In 2019, they were adjusted by 1.0% for small pensions and by 0.3% above a pension-level threshold while price inflation was 1.5%. Moreover, the adjustment of the mandatory occupational scheme has been even less favourable over the period. In total, for those who were already retired, the gross pension fell by about 4% in real terms on average between 2009 and 2019 (DREES, 2020[12]).

Notwithstanding these limitations in the application of the rules, pension indexation has become the norm over time, which has been one great development of the second half of the 20th century. Overall, on average across OECD countries, the indexation of pensions in payment over 2000-20 was equal to inflation plus 0.8% per year or wages minus 0.8% (OECD, 2021[7]).

Implications for pension policy

Although as discussed above the situation differs greatly between countries, a general policy response to temporary high inflation should be to fully protect at least the most vulnerable pensioners. There is no question that in countries without price indexation or in those which hesitate to apply the price indexation rule they have, some low-income pensioners are suffering and need an emergency response, which may include anticipating the regular calendar to update benefits.

Recent measures taken to help pensioners cope with inflation

Among countries with a price indexation of pension benefits, the best way to protect pensioners in current circumstances is to apply the indexation rule in a timely manner. Many countries have followed the price rule, including Australia, Belgium, the Czech Republic, New Zealand and the United States. In the Czech Republic in 2022, while the standard rule is to adjust pensions in January, there have been exceptional adjustments in June and September due to high inflation. The price indexation has been anticipated in France for the general pension scheme: pensions were indexed by 4% in July 2022 instead of January 2023 when a new adjustment will be decided to fully account for yearly inflation. In Hungary, as inflation has been higher than predicted by the 2022 budget law, an additional increase was applied in July 2022 retroactively from January 2022, and a further pension increase of 4.5% was decided in November to reflect still higher inflation since July.

In Lithuania, social insurance pension has been increased by about 17% in 2022. The wage-bill indexation rule has led to an indexation of about 8.5%, which was completed by a supplementary indexation rule introduced in April 2022 and an ad-hoc increase of 5%. Overall, this compares by an OECD forecast of CPI inflation of 18.8% for Lithuania in 2022 (OECD, 2022[3]). Finland granted an anticipatory indexation of 3.5% in August 2022 to basic social security benefits. Likewise, there are discussions in Poland to anticipate the indexation that is scheduled for 2023. In Spain, while the price indexation rule has been applied, the level of the old-age safety net, which applies to about 3% of 65+, was increased more, by 15%, in 2022. By contrast, Luxembourg postponed indexation from July 2022 to April 2023 and aims to introduce an energy tax credit as an offsetting measure. The United Kingdom suspended the triple lock in 2022 (see above), and uplifting pensions in line with prices is expected in April 2023.

Canada has continued to apply the indexation of the residence-based basic pension (Old Age Security pension, OAS) available to those aged 65 years or more. In July 2022, the quarterly indexation led to an increase of 2.8% of OAS benefits. On top of that, for the first time since 1973, the government has permanently increased the OAS pension by 10% for people aged 75 and over, creating a variation by age of the benefit.[4] This last move follows recent efforts to improve the income of older people, and is not directly related to inflation developments as the price indexation of OAS benefits has been applying.

In Germany, the government recently announced that the one-off transfer that was paid to employees in a first package will be extended to pensioners – regular pension indexation follows wages. Japan plans to grant a one-off payment to low-income earners, many of whom are retirees. Portugal has also opted for a flat-rate payment. In Austria, trade unions are pushing to increase pensions in line with inflation. Austria had a higher indexation for lower incomes in January 2022, at 3% versus 1.9% for pensions above EUR 1 300.

An illustration of possible measures and the implied trade-offs

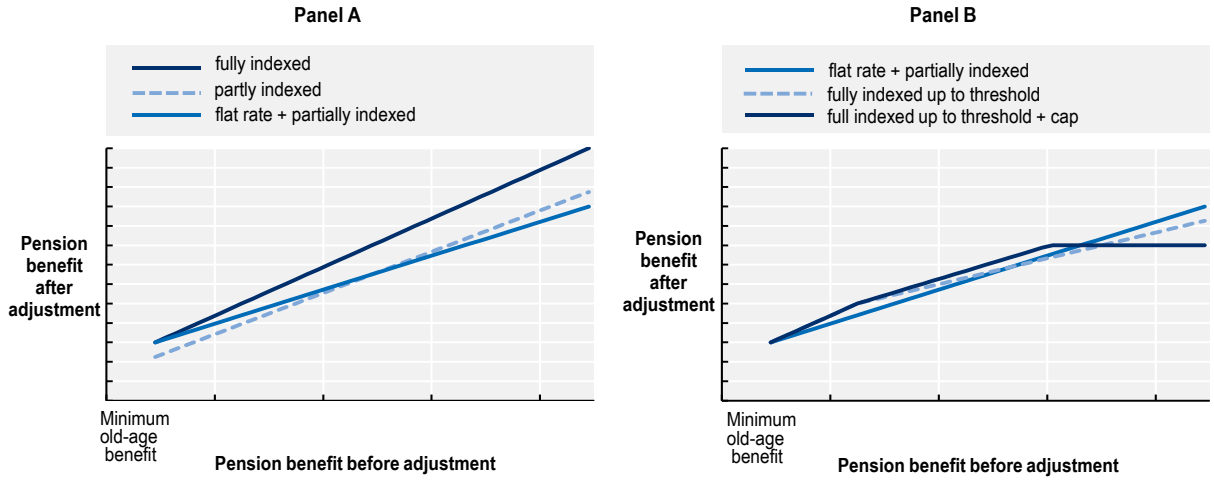
Figure 1 illustrates the trade-offs encountered in different ways to respond to the inflation surge. For this section, adjustment or indexation are used as synonymous. The full adjustment of all pension benefits in line with price inflation may be too costly. If so, various alternatives exist, and Panel A first shows two possibilities. The first is to partially index all benefits whatever their initial level, for example adjusting benefits by 70% of price inflation. Due to partial indexation, all pensioners lose in real terms, and they lose the same percent of their purchasing power (say 3% if inflation is 10% and there is a 0.7 partial indexation).

An alternative is to partially index while paying a flat-rate supplement to everyone. The flat-rate payment shown in Panel A is calibrated to ensure the full price adjustment of the lowest pensions. When comparing partial indexation without and with a flat-rate payment in a budget neutral way – that is for the same level of total spending decided by policy makers –, the indexation rate with a flat-rate payment is of course lower given the need to offset the cost of the flat-rate addition (say a 0.5 partial indexation instead of 0.7 without the flat-rate payment). This means that the option including the flat-rate payment may ensure a full protection of the lowest pension (if so decided) at a greater cost for high enough pensions (as for them the indexation rate, which is then lower, is the key parameter).

Panel B shows two other alternatives to the flat-rate supplement with partial indexation shown in Panel A. The first one consists in fully adjusting pensions up to a threshold. That way the range of pensioners fully protected is broader than only those receiving the minimum old-age benefit (the lowest income). This is costly of course and, in a budget-neutral way, this implies that the indexation rate above the threshold has to be even lower, as shown in Panel B. Another possibility is to fully index up to a threshold and partially index beyond the threshold but up to a cap where further indexation stops.[5] The cap allows to better protect intermediary pensions at a larger cost for high-income pensioners for a given level of total spending.

There are thus two main questions to design an adequate reaction to exceptional inflation. The first relates to setting priorities in terms of the population to be protected. The second is about the calibration of the response. The representation shown in Figure 1 illustrates the various questions at stake. The political choice and fiscal space determine the indexation rates. If the decision is made to fully protect the lowest pensions against inflation, several options exist. The precise policy response depends on the range of pensions to be fully protected, on whether some efforts should also be devoted to protecting intermediary pensions and on how much the high pensions lose in real terms as a consequence of concentrating the adjustments on the lower pensions, thus leaving less funding available for the adjustment of higher pensions.

Figure 1. Various measures to adjust pension benefits and protect low pensions against inflation



The cost of living crisis is evolving, and so are governments' responses to it. Price subsidies or regulations that were put in place early-on may have limited the initial budget crunch for households, including those with low incomes who spend large shares on energy and food. However, in general a multitude of initiatives in different policy domains raises the possibility of redundant or overlapping measures such as with the combination of targeted income support and price adjustment of benefits. It will be important to keep monitoring the net effects of support measures on different groups, and to adjust the scale and targeting of cost-of-living aid accordingly.

A trigger to revise the inflation index?

Using the GDP deflator as the price index, reflecting what the economy produces, would capture inflationary pressure and be more consistent with a protection that the economy can afford. The main drawback, however, is that this runs counter to meeting the objective of protecting the purchasing power of individuals when faced with negative terms of trade shocks, which is precisely when prices from the GDP deflator and the CPI diverge. It is therefore not a realistic alternative to CPI.

There has already been some controversy about whether the CPI itself constitutes a good measure of changes in the cost of living. In the United Stated, for example, the Bureau of Labor Statistics has revised the CPI methodology to correct some of its limitations (INSEE, 2022[13]). In the United Kingdom, the retail price index (RPI) was used to uprate the State pension, but severe drawbacks were highlighted in its methodology.[6] As a result, the triple-lock formula explained above now uses the CPI, with the RPI differing from the CPI mainly in the treatment of housing costs. Some have argued that the choice of the CPI to replace the RPI was more guided to lower liabilities while, part from that, the stronger protection offered by the triple lock increases future liabilities.[7]

Beyond these methodological discussions, there have been debates in some countries about the limitations of using the CPI in pension indexation to capture changes in the cost of living of retirees. The main related questions refer to the appropriate basket of goods and services to take into account. For example, the consumption basket of pensioners might be skewed towards health care, while other expenses that the working-age population generally incur might be less relevant.

Research has highlighted short-term differences in inflation measured by different consumption baskets but has typically found little evidence of persistent differences over time. For example, in France, the impact of changing the consumption basket to better fit the consumption of retirees would have had a very limited impact, estimated at a total of -0.3% cumulated over 1998-2015.[8] However, since mid-2021, inflation is estimated to have more affected older people than other age groups (INSEE, 2022[13]). In the United States, the BLS has calculated since 2007 a research price index for Americans 62 years of age and older, the Consumer Price Index for the Elderly (CPI-E). The specific spending pattern of older people is mainly captured by the larger expenditure weight of medical care, of about 5 percentage points compared with the CPI index that is used to uprate old-age (Social Security) benefits (i.e. CPI for urban wage earners and clerical workers, CPI-W). Official uses of the CPI-E have been considered by other government agencies, but not implemented due to several limitations.[9] While over 1983-2002 annual inflation measured by CPI-E outpaced CPI-W by 0.4 percentage points on average, there was basically no difference between 2002-21 on average, in part due to slower growth of health care costs (Munnell and Hubbard, 2021[14]).

Differences in consumption patterns may be larger across income levels than between working-age and old-age households. If the objective of price indexation were to better protect the purchasing power of low-income pensioners, this would suggest considering a price index better reflecting the consumption basket of individuals with low income. This discussion illustrates that such a fine-tuning to better align to policy objectives is likely to create complexities. It begs the questions whether a refined index is better than standard CPI combined with discretionary adjustments in truly exceptional circumstances.

References

Checherita-Westphal, C. (2022), "Public wage and pension indexation in the euro area: an overview", *European Central Bank (ECB) Research Paper Series Occasional Papers*, No. 299, European Central Bank (ECB). [5]

DREES (2020), "La revalorisation des pensions individuelles", in *Les retraités et les retraites - édition 2020*, Direction de la recherche, des études, de l'évaluation et des statistiques, https://drees.solidarites-sante.gouv.fr/sites/default/files/2021-01/Fiche%2004%20-%20La%20revalorisation%20des%20pensions%20individuelles.pdf. [12]

Fischer, S. (1982), "Adapting to Inflation in the United States Economy", in Hall, R. (ed.), *Inflation, Cause and Effects*, The University of Chicago Press. [9]

Hohnerlein, E. (2019), "Pension indexation for retirees revisited – Normative patterns and legal standards", *Global Social Policy*, Vol. 19/3, pp. 246-265, https://doi.org/10.1177/1468018119842028. [8]

INSEE (2022), *Guerre et Prix: Note de conjoncture*, Institut national de la statistique et des édudes économiques, https://www.insee.fr/fr/statistiques/6464639. [13]

Munnell, A. and P. Hubbard (2021), "The Impact of Inflation on Social Security Benefits", Center for Retirement Research at Boston College, https://crr.bc.edu/wp-content/uploads/2008/10/ib_8-15-508.pdf. [14]

OECD (2022), "Income support for working-age individuals and their families", *Coping with the cost of living crisis*, OECD, Paris, https://www.oecd.org/social/Income-support-for-working-age-individuals-and-their-families.pdf. [1]

OECD (2022), "Minimum wages in times of rising inflation", *Coping with the cost of living crisis*, OECD, Paris, https://www.oecd.org/employment/Minimum-wages-in-times-of-rising-inflation.pdf. [2]

OECD (2022), *OECD Economic Outlook, November 2022: Confronting the Crisis*, OECD Publishing, Paris, https://doi.org/10.1787/f6da2159-en. [3]

OECD (2022), *OECD Economic Outlook, Volume 2022 Issue 1*, OECD Publishing, Paris, https://doi.org/10.1787/62d0ca31-en. [4]

OECD (2022), *OECD Reviews of Pension Systems: Slovenia*, OECD Reviews of Pension Systems, OECD Publishing, Paris, https://doi.org/10.1787/f629a09a-en. [11]

OECD (2021), *Pensions at a Glance 2021: OECD and G20 Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/ca401ebd-en. [7]

OECD (2019), *OECD Reviews of Pension Systems: Portugal*, OECD Reviews of Pension Systems, OECD Publishing, Paris, https://doi.org/10.1787/9789264313736-en. [10]

Whitehouse, E. (2009), "Pensions, Purchasing-Power Risk, Inflation and Indexation", *OECD Social, Employment and Migration Working Papers*, No. 77, OECD Publishing, Paris, https://doi.org/10.1787/227182142567. [6]

Notes

[1] Private pensions are only briefly mentioned in this note even though they are also affected by periods of high inflation. When new retirees convert their pension assets into a price-indexed annuity, inflation developments have limited impacts on the purchasing power of their pensions. However, unanticipated inflation may significantly weaken the finances of the annuity providers if they have not covered inflation risks and of sponsors of defined benefit plans who face higher liabilities from indexation. Similarly, retirees who chose flat-rate annuities or not to annuitise at all have taken inflation risks, and their financial situation will be seriously impaired by unanticipated inflation. Moreover, fund managers are likely to struggle to achieve the previously expected real returns as inflation undermines the value of (fixed-rate) bonds while potentially induced low growth could be bad for equities. Finally, workers may find it harder to pay contributions to voluntary private pension arrangements in periods of high inflation, and opt-out rates in countries with automatic enrolment mechanisms may increase.

[2] Moreover, since contribution revenues tend to increase proportionally with wages, non-wage indexation make pay-as-you-go pension finances sensitive to long-term productivity growth, which is difficult to predict.

[3] Indexation is more favourable in Portugal when real GDP growth exceeds 2%. The indexation in Austria is based on prices. However, it is erratic in terms of what is actually applied as there are political discussions and consultations with social partners and pension groups. Generally, but not always, lower pensions have been indexed to prices with higher pensions increased at a lower rate or by a flat amount. The exception to this was from 2013 to 2017 when all pensions increased at the same rate, though it was lower than inflation in 2013 and 2014 (equal in the other years).

[4] There had been some one-off payments such as CAD 500 (about three-quarters of the monthly benefit) paid in August 2021 for those aged 74 or older.

[5] As long as the benefit remains higher than its pre-adjustment nominal level.

[6] https://www.ons.gov.uk/economy/inflationandpriceindices/articles/shortcomingsoftheretailpricesindexasameasureofinflation/2018-03-08.

[7] See https://www.ipe.com/uk-changes-to-pensions-indexation/36671.article. Although there has been some move away, RPI is still being used in many occupational DB plans.

[8] https://www.insee.fr/fr/statistiques/fichier/2832246/FCSP_2015.pdf.

[9] See https://www.bls.gov/cpi/research-series/r-cpi-e-home.htm. Moreover, the CPI-E is not a real price index as it simply reweights the data collected for the population as a whole. According to Munnell and Hubbard (2021[14]), if the decision were made to employ an index for the elderly, a new index would be needed with a larger sample of older households that relies on the prices for products they buy at places they shop.

Contact

Hervé BOULHOL (✉ herve.boulhol@oecd.org)