

CHRONICLE N°30

Income return: Did the yield gap break, or just evolve in the 2010s?

Let's start by defining "deflated OAT." This is the yield on 10-year French government bonds, our risk-free rate, adjusted for long-term inflation.

$$(1) \text{OATd} = rfr - inf \leftrightarrow \text{OATd} = \text{OAT} - inf$$

with: *OATd* : 10-year OAT deflated: the French risk-free rate adjusted for inflation
 rfr : risk-free return
 inf : the average long-term inflation rate
 OAT : 10-year OAT: the French risk-free rate

In **Chronicle 26**, we examined why it was more appropriate to use the deflated OAT rather than the nominal OAT when analysing net income return.

Furthermore, we will refer to the difference between the net income return and the deflated risk-free rate as the deflated yield gap; see **Chronicles 26**:

$$(2) \text{nir} = \text{OATd} + \text{dyg} \leftrightarrow \text{dyg} = \text{nir} - \text{OATd}$$

with: *nir* : net income return
 OATd : 10-year OAT deflated: the French risk-free rate adjusted for inflation
 dyg : deflated yield gap

Chronicle 29 showed that, despite the use of the deflated OAT, the break in the yield gap persists between the 2000s (approximately 100 basis points) and the 2010s (approximately 150 bp), although it has been mitigated.

But are we dealing with a break or a simple evolution? In our context, we would define a break as a sudden, dated change with a significant impact on the average of the dynamics under study. Conversely, an evolution would be characterized by a slow progression of this average, without a specific date.

In fact, this seemingly simple question will implicitly accompany us throughout many Chronicles, and the final explanation will turn out to be very far from our initial hypotheses...

Let us, however, start at the beginning and examine the result obtained if we treat, a priori, the yield gap as an evolution rather than a break.

To do this, we must first consider the long-term inflation process itself as an evolution. Unlike the previous Chronicle, in which we distinguished two clearly different periods in terms of average inflation (1998–2011 and 2012–2021) (Chart 1), we adopt here a 10-year moving average approach to represent long-term inflation as a continuously evolving process (Chart 2).

Chart 1

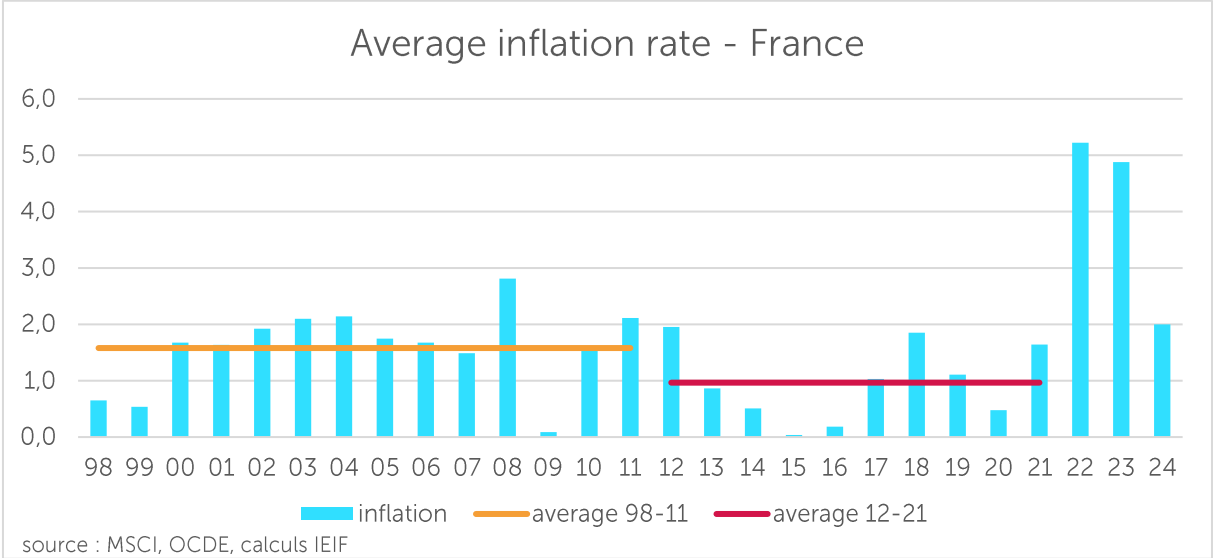
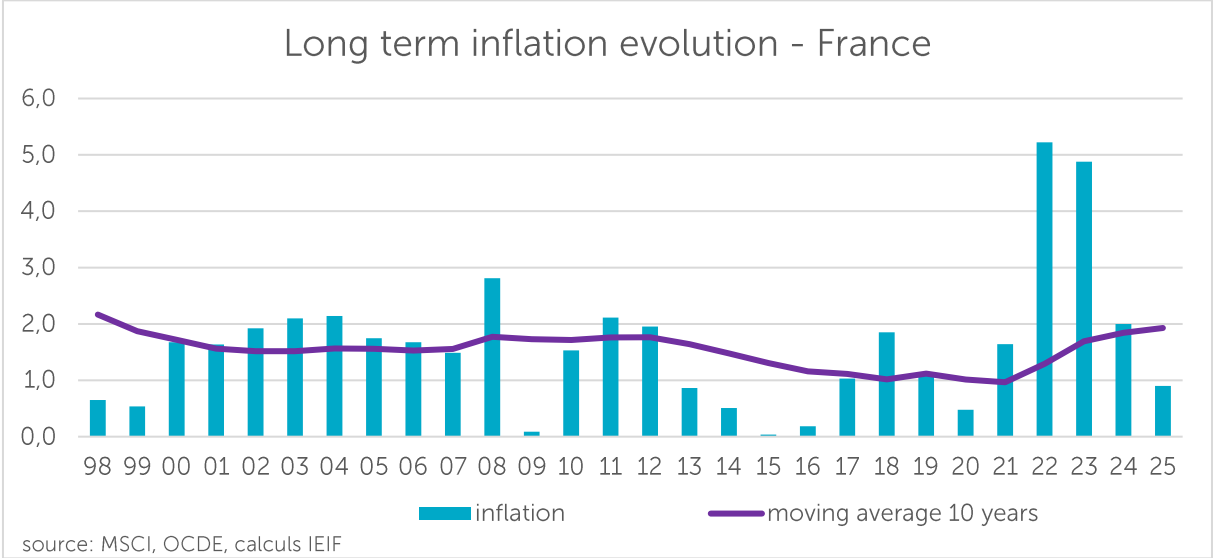


Chart 2



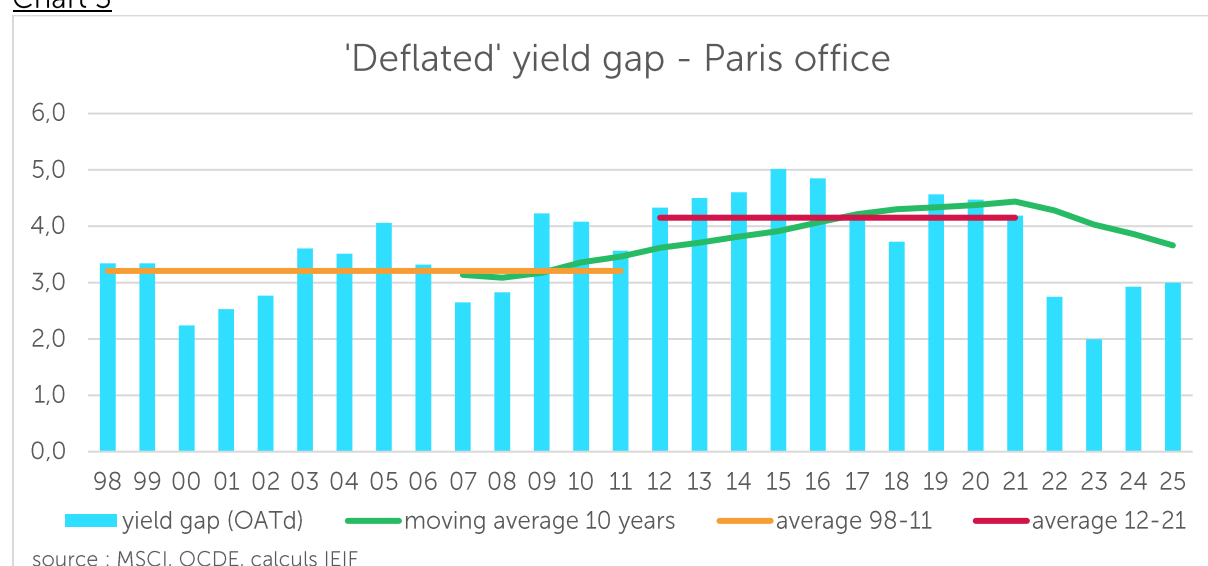
These are the same annual inflation figures, but their average representation differs because it is based on a different initial assumption: a break or an evolution?

However, in reality, regardless of the representation chosen, inflation, which fluctuated around 1.5% in the 2000s, began to fall from 2013 onwards, stabilising at an average of around 1% in the second half of the 2010s.

Subsequently, driven by the price shock linked to the disruption of global trade and the intensification of the war in Ukraine, the 10-year moving average of inflation rose rapidly to reach 2% in 2025. This point is sufficiently significant that we will devote our entire next Chronicle to analysing this sharp rise in inflation.

For now, let us simply analyse the consequences, on the deflated yield gap, of an approach based on an assumption of evolution rather than a break (Chart 3).

Chart 3



Looking at the graph, it is difficult to say that one hypothesis clearly prevails over the other. The averages for the periods 1998–2011 and 2012–2021 are indeed significantly different. However, it remains difficult to pinpoint the exact date from which the change took place, even though 2009 or 2012 may appear to be plausible candidates. The mere fact of wavering between several dates, however, undermines the hypothesis of an abrupt break.

An examination of the annual deflated rate differential shows that between 2009 and 2021, it almost consistently exceeds 400 basis points, whereas in the preceding and subsequent periods, this occurs only once... The global financial crisis that began in 2008, which led to the increasing use of unconventional monetary policies, is undoubtedly the trigger for this change. However, this does not allow us to decide between a break that occurred over a few months and an evolution over several years.

Graphically, both interpretations are therefore tenable, although I favour the hypothesis of an evolution, more in line with the gradual rise of central banks' unconventional policies: successive rate cuts, until they entered negative territory, followed by the implementation of asset purchase programmes, first public then private, on an increasingly massive scale. In other words, a gradual transformation rather than an immediate break.

Another argument in favour of an evolutionary interpretation stems from the current difficulty in defining an indisputable 'equilibrium' level for the yield gap for the period beginning in 2022. Should we assume 300 basis points, as before the global financial crisis? Or rather 250 basis points, as recent trends seem to suggest? The abrupt break hypothesis leaves considerable uncertainty on this point.

Conversely, the 'evolution' hypothesis offers a simpler way of describing the dynamics observed year after year: the yield spread is correcting rapidly. But is this interpretation really satisfactory? That is what we will examine in our next Chronicle.

These chronicles are linked to my activity at the IEIF, a Paris based think tank on real estate where I conduct research into the modelling of major property variables. For those less familiar with property analysis, these chronicles can be a source of information and a knowledge base. For experts in the field, their purpose is to launch discussions and exchanges on the various subjects I cover. Some of the chronicles will be based on known and familiar elements, while others will deal with research elements and present some of the results of my work.