

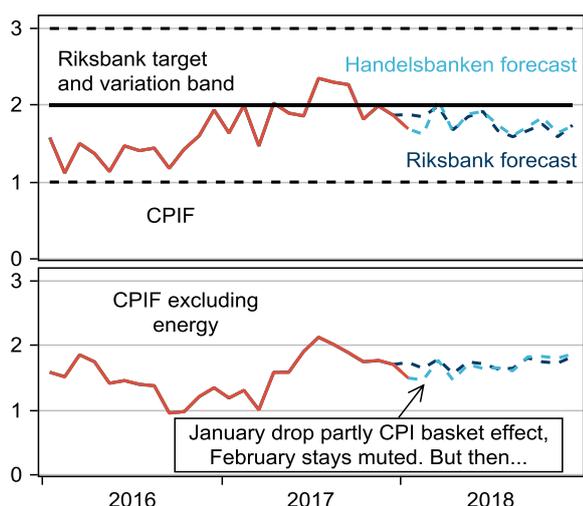
Sweden

In defence of inflation

In the midst of an onslaught of renewed pessimism about the consumer price outlook, we once again wave the banner of a sustained positive inflation trend. Judging by questions from clients, talk among fellow analysts and commentary in the media, we would do best writing memos titled *All Quiet on the Price Rise Front, Game of One-Offs – Price Hikes Stop Coming*, or even *Inflation and its Critics*. However, after re-examining the cold, hard data, we conclude that a more positive tone is warranted and argue that inflation is still trending upward and is therefore bound to surprise many on the upside. We expect the March CPI to start confirming this, while tomorrow's February outcome will show that inflation was still muted last month.

With the January inflation outcome done and dusted, it is time to look at what lies ahead for price changes during 2018. We now know that we will have to live with a larger-than-expected negative inflation effect this year due to the CPI basket changes, but we believe that the direction of the inflation trend will influence the monetary policy actions of the Riksbank ahead. Our view is that inflation will remain within reach of the two-percent target, and in this report, we break down some prevalent counterarguments. We conclude that the positive trend of recent years is set to continue, with inflation gradually closing the gap between its outcome and the Riksbank's forecast. However, the first confirmation of this will likely have to wait until the March CPI reading, as we expect the February print to stay on the low side.

Inflation to recover lost ground soon



Source: Handelsbanken and Macrobond

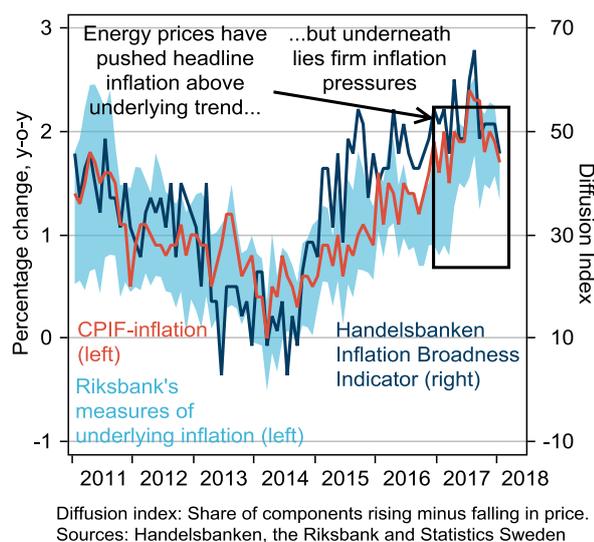
“The positive inflation trend has merely been a flurry of one-off flukes”

Even if a few months this year could produce inflation readings that are somewhat marred by base effects from some of last year's price change events, we do not agree with the argument that the positive inflation trend has merely been a flurry of one-off flukes.

Let us start by considering a typical monthly inflation outcome. There is often a lot of noise if the price change in a CPI component sticks out substantially, as analysts try to flesh out a story for what is happening with inflation. In our view, digging into the details can be a helpful complement to quantitative methods when trying to discern whether or not changes in inflation are broad-based and thus more permanent. As such, one freak outcome on the component level can occasionally be assumed to affect the headline inflation numbers for a full year, while at the same time being judged as having little or no impact on the underlying inflation trend. Take the example of fees in the Swedish electricity grids. Some time ago, a court ruling enabled grid operators to lift fees more steeply, citing the need to finance investments. The large grid fee increases that followed caught forecasters off guard and sent inflation prints higher for a full year thereafter. Predictably, the fee increases were the topic of much discussion despite being unrelated to underlying inflation and holding limited value for forecasts.

In our view, this focus on nitty-gritty details in inflation reporting and on storytelling has probably contributed to the rise of the idea that the recent inflation increase is little more than a collection of quirky, one-off price increases. We argue that this is a misconception and that the steady stream of price increases is instead evidence of inflation being in a self-sustained positive trend – just as quantitative indicators have suggested for some time.

Large majority of prices are rising



So, how can we explain this conclusion of a self-sustaining trend? First, we highlight that the price increases include substantial rises in many CPI components that rarely have their prices reset. As such, we argue that many firms have come to a similar conclusion; namely, the factors driving the pricing decision have changed, thereby prompting price increases. Second, given that every firm does not get the opportunity to change prices in every single time period, we anticipate that the recent steady stream of price increases is likely to continue. That is, even if notable price increases would not reoccur in the very same firms or even the same components as last year, others will take their place along the way, as new pricing decisions are made in a similar environment.

The economic reasoning behind this argument includes the concept of *menu costs*, the idea that changing prices is associated with a cost – like a restaurant paying to reprint its menus – effectively making price changes infrequent.¹ One thing that could weaken our argument is the notion that prices *per se* have become more flexible, but that idea is not fully supported by academic research. However, it is clear that sales have become more frequent.

All in all, our message is that despite the prices of many CPI components being quite inflexible (i.e. reset only at “the yearly pricing meeting” or even more seldom), they are still part of the normal inflation process, responding to the business cycle, cost pressures and so on. Against that backdrop then, what

¹ Another thesis is that firms refrain from changing their prices too often simply because it annoys customers. Furthermore, pricing decisions take into account the actions of competitors and one’s own pricing power in the market; these are factors that take time to monitor. To account for

is the current cost situation and are there pent-up pipeline pressures about to stoke consumer prices this year?

“Costs are low, so when the krona strengthens, the inflation rise is doomed”

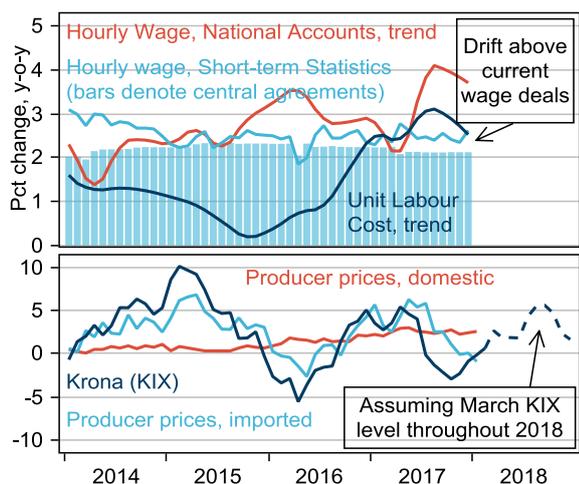
Despite prevailing counterarguments, we find that costs are not low anymore and inflation can withstand quite a bit of a possible krona appreciation.

Let us start with the exchange-rate pass-through to inflation. Even if the krona strengthens materially ahead, there are lagging effects from years of massive depreciation that will push inflation in the opposite direction, i.e. upward. First, some weakening of the krona has taken place so recently that it has yet to fully appear in the data for even flexible prices, such as fuels, fruit and vegetables. Second, building on our discussion of inflexible prices, many firms have still not had the opportunity to think about changing their prices in this new setting with an even weaker krona. When that eventually happens, the krona exchange will be a positive factor in the pricing decision. That holds true even if we assume some appreciation of the krona ahead due to the overall depreciation in the rear-view mirror.

Turning to costs, firms have not only been faced with faster import price increases caused by the exchange rate, but they also appear to have been impacted by accelerating global inflation over the last couple of years. This is indicated by the fact that price increases in imported consumer goods in the Swedish producer price data have been more rapid than what could be explained by changes in the krona alone. In our January *Global Macro Forecast*, we argued that global inflation might be on the rise, a case that has since strengthened. Such trends will lift goods prices further.

the observed inflexibility in many prices as well as the lagging response in prices to a change in fundamentals, the pricing process in economic models is often set up as a lottery in which only a limited proportion of all agents get the opportunity to act in each time period.

Costs pressures are on the rise



Producer prices for consumer goods excl. energy. Trend denotes four quarter average. Sources: National Mediation Office and Macrobond.

So, are rising prices on imported inputs the reason behind the upward trend in domestically-produced consumer goods? Probably not solely. Consider a Swedish foods manufacturing firm. Even if imported goods such as dairy and meat are key inputs, other costs matter even more. Labour costs are an obvious example that affect both the firm and its domestic suppliers, particularly for support services. But wages are low, right? Actually, labour costs are somewhat higher than they appear at first glance. While still slow in the historical sense, hourly wage increases are now in an upward trend. This also implies that wage drift has been reborn because last year's central wage agreements called for wages to decelerate. Even more importantly, unit labour costs, which provide a better indication of firms' marginal costs by also taking the economy's lacklustre trend productivity into account, have accelerated somewhat more markedly. Admittedly, the last few readings have somewhat challenged the positive labour cost tendency, and it is important to monitor future data because these form part of the bedrock underpinning both our inflation forecast and the Riksbank's view.

“Tax hikes have been large, but are abating, effectively popping the inflation bubble”

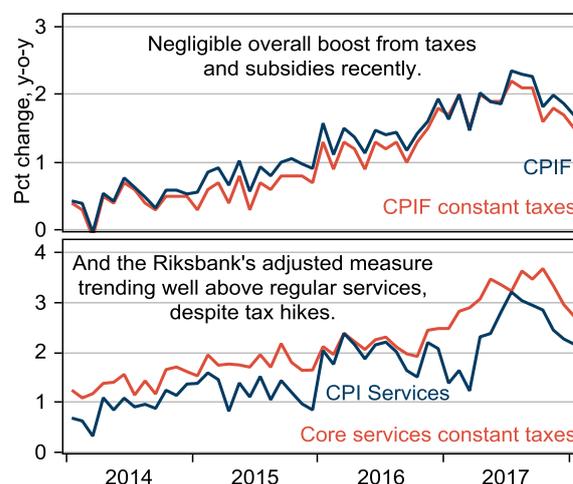
Even though tax increases and subsidy cuts have boosted inflation, we highlight that this has only had a mild impact, and occurred mostly in 2015 and 2016. Thus, we argue that taxes are not a major factor in the inflation trend.

During 2018, there will be some negative base effects on inflation from energy and chemicals taxes introduced in mid-2017, although a new flight ticket tax in April will compensate slightly. Looking beyond these factors, the key message is that the bulk of

current inflation is related to the economy as described above, and not to political decisions. Notably, headline inflation is only slightly higher than tax-adjusted inflation.

Administrative prices set by local municipalities could be suspected to follow discrete political actions as well. However, these prices, much like rents that are not set on full market terms in yearly central negotiations, are often related to recent inflation outcomes, as well as costs. It might be an unfortunate situation, but it is part of the game that this category of prices sometimes acts as a lagging accelerator of inflation movements. In any case, for 2018, arguments for a deceleration in overall administrative prices are scarce, even if inflation in certain months could be hampered by a negative base effect from last year's rise in elderly care fees.

Taxes not a major factor in CPI trend



Replicated Riksbank measure, more info in Riksbank MPR April 2016. Source: The Riksbank, Handelsbanken and Statistics Sweden.

The Riksbank has focused a lot on trends in CPI service prices as an indicator of how large of a footprint the booming business cycle is actually having on inflation. In an effort to follow service prices more closely, the Riksbank has previously referred to an adjusted measure, stripping out tax effects, rents, exchange-rate-related travels and, due to a confusing time series break in 2016, telecoms. Replicating this adjusted core services indicator, we again find proof of a positive inflation trend.

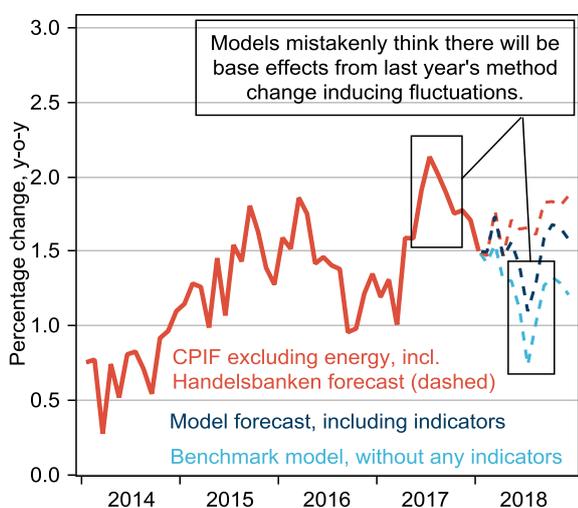
If service prices are this important, should we not examine service prices at the producer level to inform our forecast? No, that is actually not very useful. The service price producer index does not bring much additional information to the inflation analysis after including the time series analysis of the CPI itself and labour costs. As an explanation, recall that some components in the Service PPI are built from the

data collected for the more timely CPI, and some components are based on hourly rates that are in practice highly correlated with labour costs.

Our inflation forecast is still trending upward

Tying the above analysis together in a system of forecast models, we also find support for our forecast of a sustained positive inflation trend. Models without indicators show a gradual deceleration in core inflation, back toward the historical mean (which is well below 2 percent). However, adding the inflation indicators discussed in this report, along with a multitude of sentiment data, business cycle indicators, etc., generates much more positive model forecasts.

Indicators lift model forecasts markedly



Source: Handelsbanken and Statistics Sweden

To arrive at our own forecast, we judgementally add roughly 0.2 percentage points to the model forecast. This judgement is based on several factors. The first is our forecast for global inflation to accelerate slightly more than the consensus call. The second is an add-factor to compensate for the fact that the models are estimated on data dominated by a low inflation period, during which even long-term inflation expectations fell temporarily. The third is a marginal effect from the new tax on flight tickets, which will be introduced in April.

Risks to this forecast include higher inflation if the krona remains at today's weak level. In our forecast, the residual pass-through from recent krona depreciation is expected to counter the effects from the appreciation that we forecast for the latter part of 2018. Additionally, as mentioned above, weaker-than-anticipated labour costs represent a downside risk to inflation beyond the near term.

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