



Swedish Real Estate Crash

By John Greenwood

Introduction and Overview

- As a small, open economy with a relatively large manufacturing sector linked to European supply chains and markets, Sweden can be a useful lead indicator for the eurozone.
- In addition, the high degree of leverage in the Swedish economy should make for a decisive response to any tightening or easing of monetary policy.
- With one noteworthy exception, Sweden appears to conform to the standard template of monetary analysis, expanding and inflating with faster broad money growth, and slowing with lower inflation after reduced money growth.
- The current monetary tightening by Sweden's central bank, the Riksbank, has closely followed the ECB in terms of interest rates, but the monetary slowdown as measured by M3 has been much more dramatic, especially since the peak of M3 growth was so much higher than in the euro-area.
- In view of the scale of the earlier monetary expansion, the sudden and steep downturn in M3 combined with rising interest rates has produced falls in equity prices and house prices, along with commercial real estate. There is certainly more to come.
- Sweden's high leverage ratios have contributed to these trends and to the current crisis for commercial real estate.
- Consumer spending has slowed sharply, as reflected in falling real retail sales data.
- Industrial production has maintained its level, but new orders have fallen.
- After peaking at 25.6%, producer price inflation has fallen sharply, while CPI inflation, having peaked at 12.3% in December 2022, has yet to fall below 10% on a year-on-year basis. However, the monetary squeeze is tight enough to ensure a shift to mild deflation in 2024.
- Based on current monetary trends, Sweden will enter recession later this year or in early 2024.
- This analysis carries conclusions for the currency, for equities and real estate (p. 11).

International Monetary Monitor Ltd

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1. Reasons for studying Sweden.

There are several reasons to follow the Swedish economy. First, Sweden is a relatively small, open economy with a large manufacturing sector that is linked to broader European supply chains and product markets. With a GDP of roughly US\$600bn in 2022, Sweden's economy is only one fifth the size of France's economy. However, Sweden's goods exports amount to one third of GDP, which means that Sweden is far more plugged into international trade than many larger economies. In fact, no less than two thirds of Sweden's exports go European markets.

Second, the high degree of leverage in the Swedish economy – which some economists argue was encouraged by the negative interest rates controversially introduced by the Swedish central bank, the Riksbank, from 2015 until December 2019 – means that Sweden has been especially sensitive to monetary tightening. With the Riksbank, currently closely mirroring the ECB in terms of rate hikes, it is useful to focus on Sweden as a potential “canary in the coalmine” or lead indicator for the wider European economy. Will this observation from recent decades hold up in the present cycle?

Third, on the domestic side, the high level of debt in Sweden's household and corporate sectors means that consumer demand should respond quickly to any monetary tightening. Does the current downturn in Swedish retail sales and consumer demand more generally have implications for the euro-area as a whole?

2. Does the Swedish economy conform to monetary norms observed elsewhere?

The first thing for a monetary economist to establish when studying any economy is whether the relation between money and spending or between money and inflation is dependable.

Figure 1. The Swedish economy appears to conform to monetary norms.

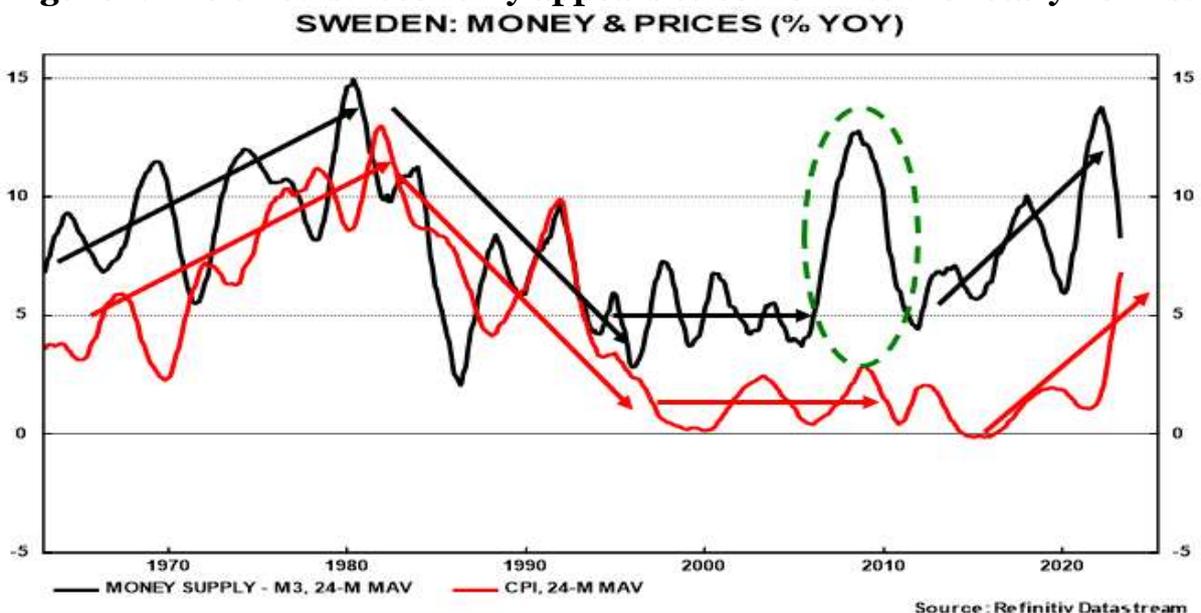
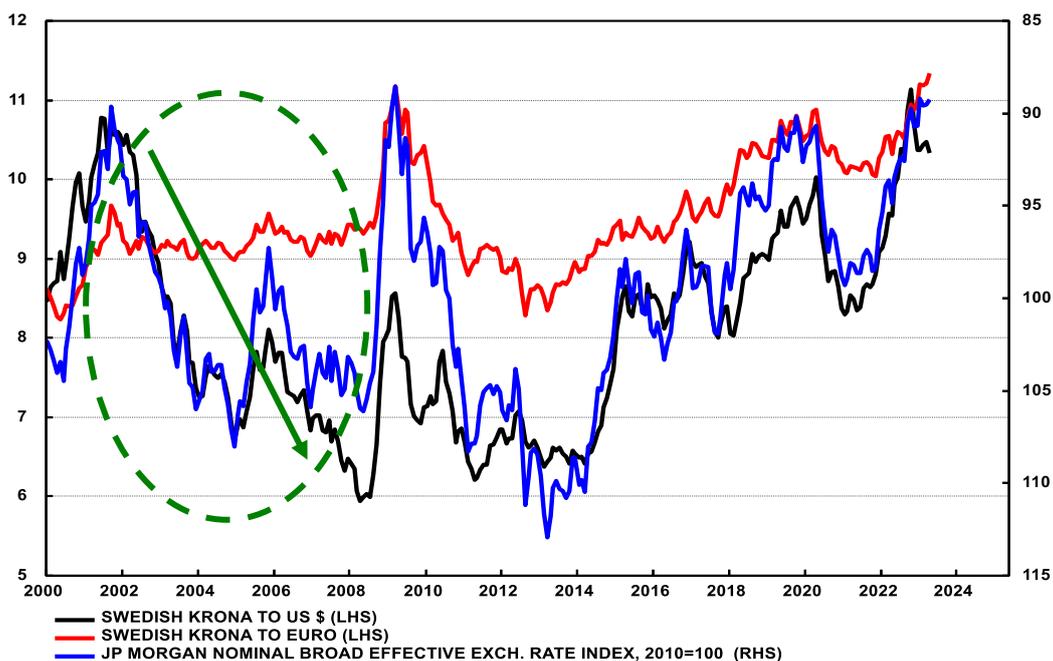


Figure 1 shows broad money (M3) growth and inflation as measured by the CPI in Sweden since the early 1960s. Since the relation is always a medium-term one, that is, money drives spending and inflation a year or two later, the year-on-year data here are shown as 24 month moving averages. The resulting graph shows that **extended** upswings or downswings of money have been associated with similar movements of the inflation rate in the same direction, with inflation typically lagging by about 18 months. There is only one exception: the surge in money growth during the period from August 2004 to February 2008 (shown by the green dashed oval) was not reflected in either CPI inflation or nominal spending (nominal GDP, not shown).

What might account for this anomaly? Aside from a sudden change in the behaviour of Swedish people (which is surely implausible), there are two possible reasons for the temporary breakdown of the relationship in 2005-08. The first is that there could have been a significant shift in the definitions of money (or, less likely, nominal GDP or inflation). The second is that there were strong movements in the exchange rate, which in an open economy like Sweden with a large trade sector, could have offset or moderated the effect of faster money growth. Cross-checking reveals that although Sweden's M3 growth surged to 12% on the 24-month moving average basis shown in Figure 1, the exchange rate of the krona (SEK) against the USD also strengthened from 10.775 (0.09281) in June 2001 to a peak of 5.95 (0.1681) in April 2008, an appreciation of 81% (Figure 2). On a shorter-term basis, the SEK strengthened from 7.54 (0.13263) in August 2004 to 5.95 (0.16807) in April 2008, an appreciation of 27%. Note that in the green circled area of Figure 2 the krona was particularly strong against the USD (in black) and on a trade-weighted basis, i.e., against the USD and related currencies, but very stable against the euro (shown in red) over this period.

Figure 2. A strong SEK in 2002-08 offset some of the faster M3 growth.
SWEDEN: KRONA VERSUS USD, EURO & TWI



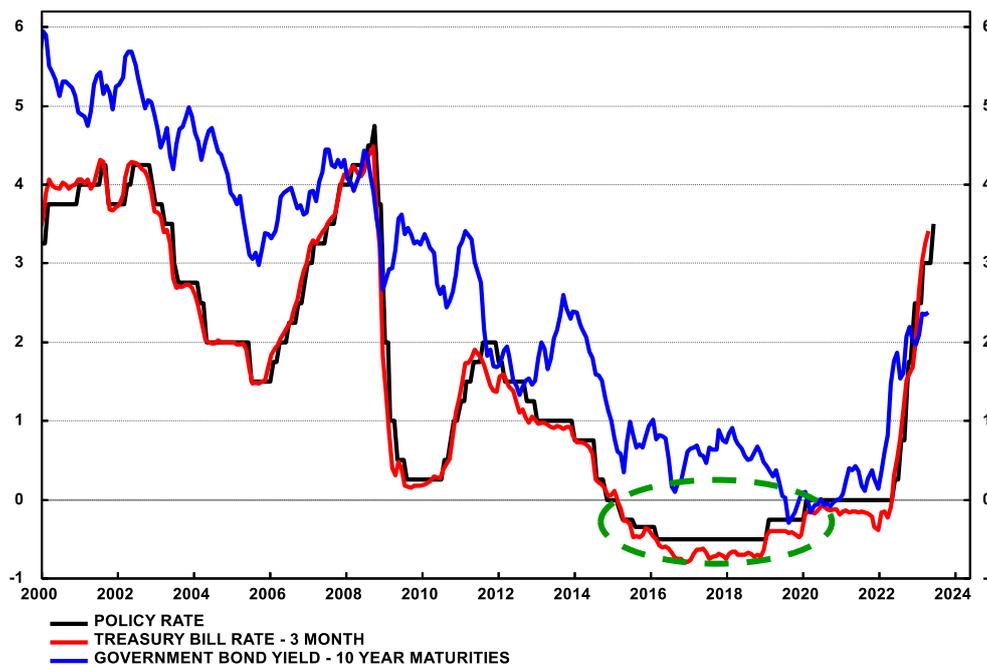
Source: Refinitiv Datastream

It would seem reasonable, then, that such a large appreciation reduced or largely countered the inflationary effect of faster money growth during the period 2004-08.

3. The Swedish Riksbank's current policy stance

Turning to the immediate situation in Sweden, like other central banks that presided over the creation of excess money during the Covid pandemic in 2020-21, the Swedish central bank (Sveriges Riksbank) is now in full scale tightening mode. In Sweden's case, because the krona has been loosely pegged to the euro, the central bank's policy rate had already been raised from negative rates in 2015-20 to zero (circled in green), and then in the current tightening phase the policy rate has been raised from 0% in April 2022 to 3.5% in May 2023. As shown in Figure 3, the market rates for T-bills (in red) have risen a comparable amount, while 10-year government bond yields have increased to 2.38%.

**Figure 3. The Riksbank has raised its policy rate from 0% to 3.5%.
SWEDEN: INTEREST RATES**

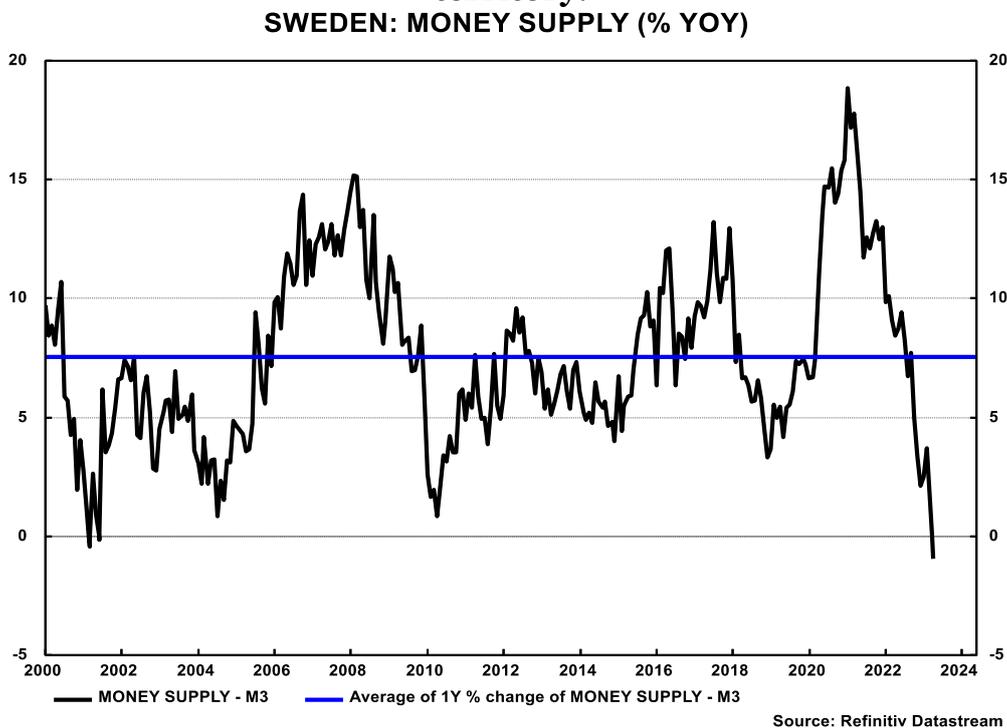


Source: Refinitiv Datastream

How should we judge the cumulative effect of the 350bp of rate hikes since May 2022? The policy seems to have had a negative impact on asset prices and nominal spending. But so far, the tightening and resulting slowdown have failed to make any significant dent in the reported inflation numbers. The effect on market inflation expectations has arguably been more pronounced. But in the absence of any downward trend in the realized data for core inflation, the Riksbank is likely to maintain its hawkish stance. The problem here, as Milton Friedman always warned, is that reliance on interest rates as an indicator of the stance of monetary policy is fraught with difficulty and may give a misleading signal. After all, rates may be high due to recent tightening or due to a rise in inflation expectations.

A better way to assess monetary policy is to review the effects of policy on the growth in the quantity of broad money held by firms and households, M3, as shown in Figure 4. For a proper understanding of the tightness of monetary policy we need to examine the current broad money growth rate in relation to what is appropriate for the economy as well as in relation to past episodes of tightening. In March 2023 for the first time since 2001 the year-on-year growth rate of M3 has slipped into negative territory (-0.9%). This is comparable to previous episodes of tightening (in 1985, 1992, 1995 and 1998), although not yet as restrictive as in 1992 when M3 growth fell to -3.9% year-on-year in September 1992, the squeeze that brought on the property and banking crisis of the early 1990s.

Figure 4. After a period of excessive growth, M3 has slumped to negative territory.



Using the Quantity Theory of Money, we can calculate the optimum growth rate for M3, given Sweden’s inflation target of 2% for the CPIF (“consumer price index with a fixed interest rate”). To solve the Quantity Theory equation $MV = PY$ in its rate of change form ($m+v=p+y$), we need to know the average annual change in velocity (-2.4% p.a.) and the average annual real GDP growth rate (+ 2.4%). Both these figures are based on their average annual changes for 1998-2019. The result, shown below, is 6.8% p.a.

$$m=p+y-v = 2 + 2.4 - (-2.4) = 6.8\%$$

On this basis we can firmly state that the decline of M3 into negative growth is unnecessarily tight and risks (1) pushing the economy into a recession, and (2) creating deflation if sustained for many months.

It could be argued that because there has been excess money growth in the recent past, the Riksbank should overcompensate by – in effect – removing some of the excess M3 from the system. However, this overlooks the fact that monetary changes

operate on the economy with considerable lags. So far as the previous excess M3 is concerned, those effects have already been seen in asset prices, in economic activity and spending, but are still showing up in prices. Conversely, the effects of a monetary squeeze now will impact asset prices, the economy and goods and service prices over the next year or two; they will not moderate the effects of the previous monetary excess. In other words, squeezing the economy now will simply intensify the roller-coaster effect, taking the economy from boom to bust without moderating the previous boom which has already passed into history.

Before leaving the monetary scene and moving to asset prices, the economy and inflation, it is interesting to observe one particular feature of the Swedish monetary system. This is an attribute shared with other Scandinavian economies, specifically the very high usage of electronic forms of payment and the parallel decline in the use of physical cash for day-to-day payments.

Figure 5. Sweden has seen a marked decline in the use of cash currency.

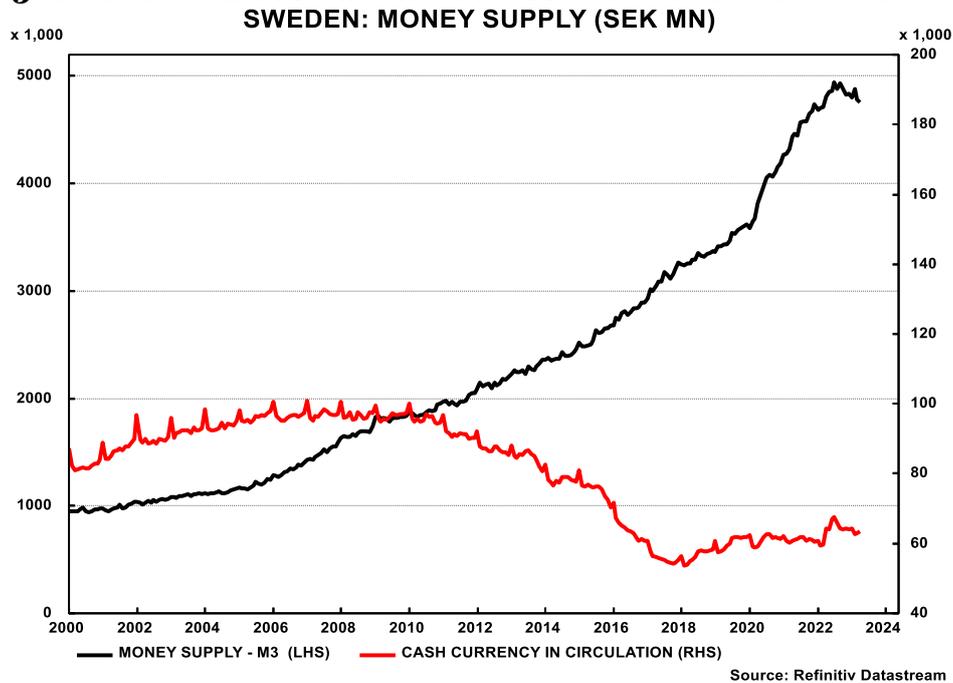


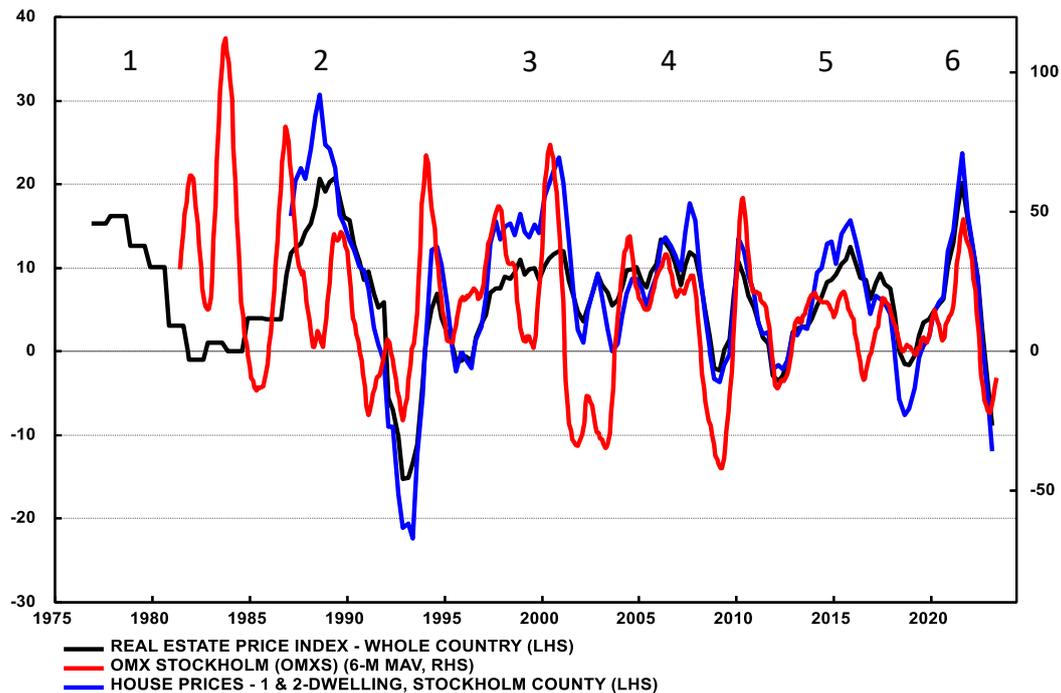
Figure 5 shows the absolute total of M3 outstanding as well as cash currency in circulation. According to Riksbank data, cash currency in circulation peaked in absolute terms in December 2006 at 100,883 million krona, but subsequently it roughly halved to an absolute low of 53,818 million in February 2018, since when it has recovered modestly. However, as a share of total M3 it was already declining from the 1960s due to the generally more rapid growth of deposit money compared to cash currency. From a starting point of about 13% of M3 in the 1960s, cash currency has declined to just 1.3% today.

The decline in cash currency as a share of the monetary system does not affect monetary policy since what matters for spending on assets or on goods and services is the entire stock of money available for making payments or for holding as a

financial asset. This observation reinforces the validity of focusing on broad money totals for the purpose of most macroeconomic analysis, not on components of broad money such as M1 or cash currency in circulation.

4. Asset Prices and Leverage.

**Figure 6. Sweden has had six major asset price cycles since 1975.
SWEDEN: HOUSE PRICES & STOCK PRICES (% YOY)**



Source: Refinitiv Datastream

Swedish asset prices, as shown in Figure 6 by indices for stock prices and house prices, have experienced six major cycles since the 1970s. The chart demonstrates the broad similarity between stock prices and house prices, suggesting that similar forces drive both markets, though stock prices (in red) have clearly been more volatile. In my assessment, both markets have been driven by the changes in the rate of monetary growth, but other factors such as changes in leverage and variations in interest rates have also played a part.

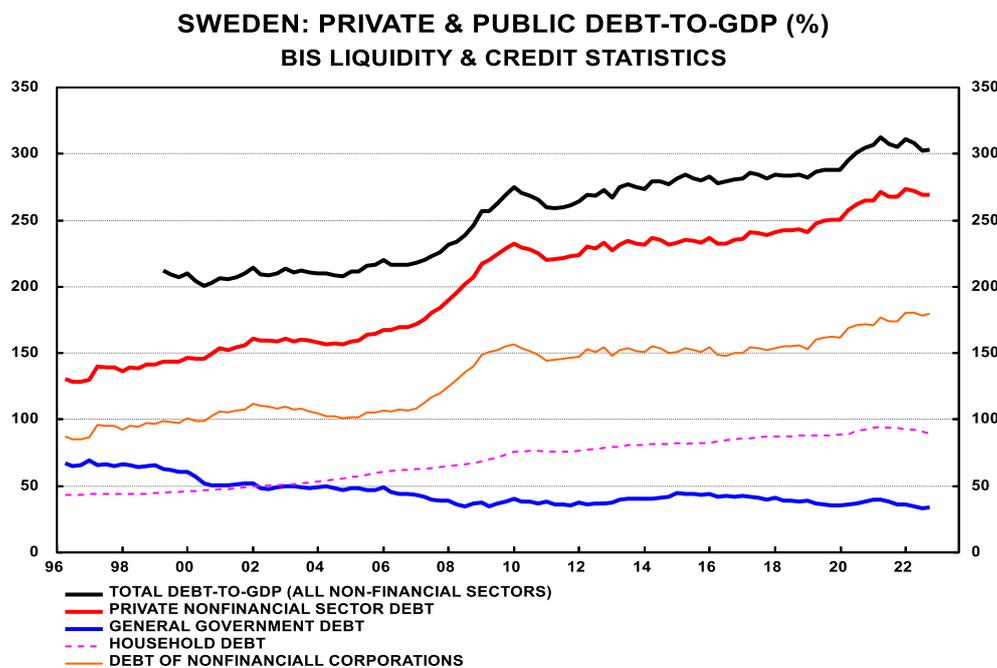
The recent surge and decline in both real estate and stock prices directly reflect the surge and then the collapse in M3 growth between February 2020 (just before the onset of Covid) and the present. The peak in year-on-year growth of M3 was in December 2020 at 18.9%, but the absolute peak in the outstanding stock of money was in June 2022. Over this period of expansion, the cumulative growth in M3 was 34.7% (effectively five years of warranted growth in just over two years), but the subsequent decline in M3 has reduced the cumulative increase to 29.7%.

Here we focus mainly on the vulnerability of Sweden's private sector due to leverage. For a decade Swedish firms and households took advantage of low and negative interest rates and rising property values to load up on debt. As shown in Figure 7,

household debt reached 94.5% of GDP in 2021 Q1, though it had retreated to 89.6% by 2022 Q3. (By comparison, eurozone household debt-to-GDP was just 58.3% in 2022 Q3.) Measured relative to gross disposable income, household debt increased from 106% to 184%. By comparison, in the eurozone, household debt increased from 76% to 96%.

Meanwhile, non-financial corporate debt reached 179.8% of GDP in 2022 Q3. The combined total of household and corporate nonfinancial private sector debt-to-GDP in 2022 Q3 was 269.4%, substantially higher than the Netherlands (241.3%), Canada (217.0%), Denmark (216.0%), or Australia (177.5%). Add to this the dependence of Swedish household mortgage debt on short-term rates and 3-month fixing periods, and it is easy to see the vulnerability to rising interest rates.

Figure 7. Swedish Debt Ratios are High by International Standards



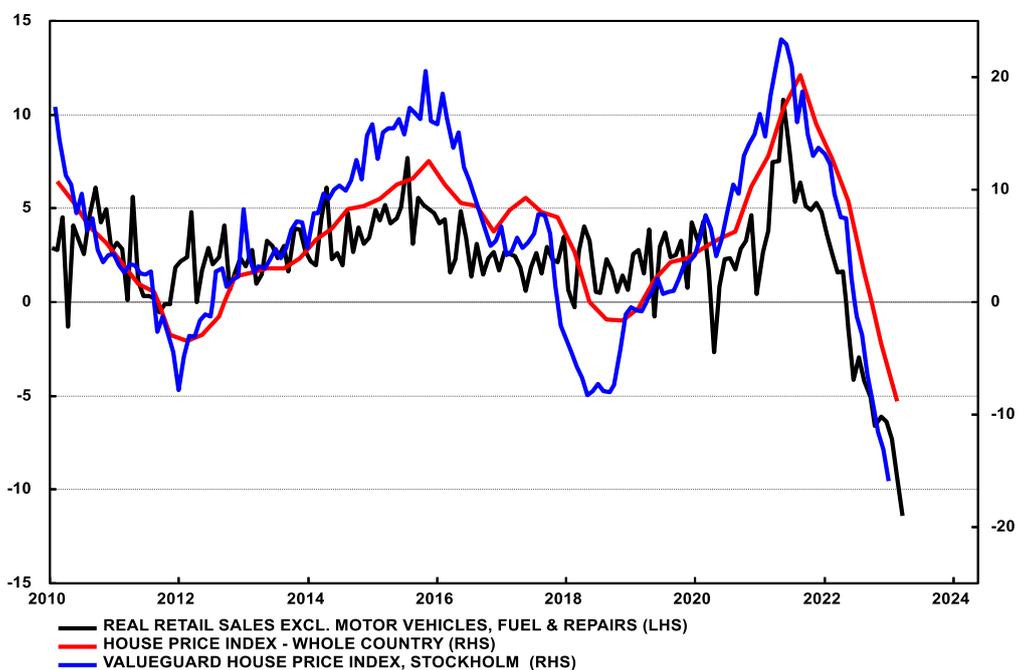
The easy availability of debt during the period of low interest rates over the past two decades has helped drive Sweden's house-price-to-income ratio up by 86%, compared with a 29% rise for the eurozone. In the commercial property sector, low interest rates pushed prices up strongly, but now yields are rising steeply as rates and the cost of debt increase. Based on current interest rates, yields on prime Stockholm offices in 2023 could increase - by one estimate - from 3.5% to 4.7%, implying a 25 per cent drop in prices.

The risks in the Swedish property sector are also reinforced by other factors. Aside from households and firms needing to refinance their borrowings just as interest rates touch their highest levels since before the 2008 financial crisis, about 70 per cent of Swedish property bond issuance is also floating rate, compared with just 2 per cent in the eurozone. Swedish property and Swedish property companies are

therefore particularly vulnerable to higher interest rates, as has become clear in recent weeks with the crisis for SBB, one of the largest companies in the sector. (The company was forced to postpone a dividend payment and abandon plans to raise equity after a credit rating downgrade to junk.)

There is also a link between asset prices - and especially house prices - and consumer spending. This can be seen in the relation between house price changes and changes in retail sales (Figure 8). As household budgets are squeezed by rising mortgage payments, consumer spending has been curtailed, declining by 11.4% year-on-year in real terms in March.

Figure 8. House Price Declines are Directly Impacting Retail Spending.
SWEDEN: RETAIL SALES & HOUSE PRICES (%YOY)



Source: Refinitiv Datastream

Finally, we turn to inflation. With the Swedish currency having remained in a relatively narrow range of SEK 8.0-12.0 versus the euro over the past two decades (see Figure 9), inflation in Sweden has necessarily followed inflation in the euro-area.

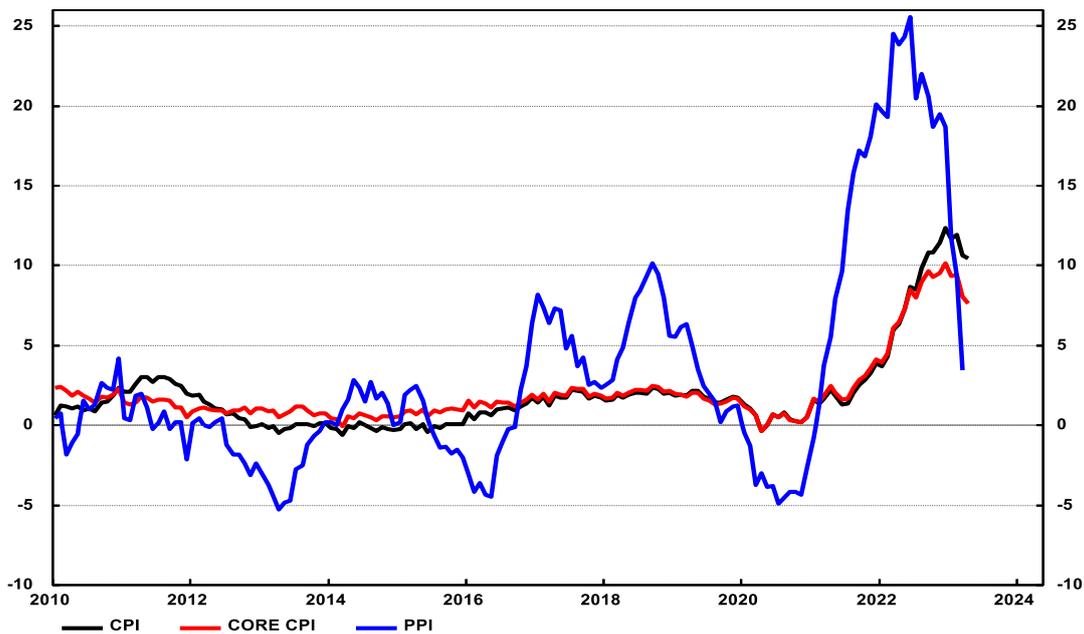
However, faster M3 growth in Sweden during the pandemic has now generated a significantly higher rate of inflation, and the currency is notably weaker.

Figure 9. Swedish Krona Maintained within a Band versus the euro.
SWEDEN: KRONA VERSUS EURO



Source: Refinitiv Datastream

Figure 10. Inflation Likely to Fall Steeply as a Result of the M3 Contraction.
SWEDEN: PRICE INFLATION (% YOY)



Source: Refinitiv Datastream

Producer prices peaked at 25.6% year-on-year in June 2022, but have since tumbled - in line with falling energy prices - to 3.5% in March 2023. Naturally, the service components of consumer prices are much less responsive to global commodity prices, but even so, the headline CPI has slowed from 12.3% in December 2022 to 10.5% in April, while core CPI has declined from 10.2% in December to 7.6% in March.

In light of the steep decline in M3 growth in recent months (refer to Figure 4), we should expect disinflationary pressures to dominate in the months ahead. For Sweden, therefore, as for several other developed economies, the current bout of inflation has peaked out and will soon turn to disinflation, or even briefly to deflation. In other words, it is not a case of a shift to a sustained period of higher inflation; it is a case of an episode of inflation triggered by an unnecessarily rapid period of broad money growth in response to the Covid pandemic being replaced by a period of excessively tight monetary conditions.

Summary and Investment Conclusions

- As a small, open economy with a relatively large manufacturing sector linked to European supply chains and markets, Sweden can be a useful lead indicator for the eurozone.
- In addition, the high degree of leverage in the Swedish economy should make for a decisive response to any tightening or easing of monetary policy.
- With one noteworthy exception, Sweden appears to conform to the standard template of monetary analysis, expanding and inflating with faster broad money growth, and slowing with lower inflation after reduced money growth.
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- In view of the scale of the earlier monetary expansion, the sudden and steep downturn in M3 combined with rising interest rates has produced falls in equity prices and house prices, along with commercial real estate. There is certainly more to come.
- Sweden's high leverage ratios have contributed to these trends and to the current crisis for commercial real estate.
- Consumer spending has slowed sharply, as reflected in falling real retail sales data. Industrial production has so far maintained its level, but new orders have fallen.
- After peaking at 25.6%, producer price inflation has fallen sharply, while CPI inflation, having peaked at 12.3% in December 2022, has yet to fall below 10% on a year-on-year basis. However, the monetary squeeze is tight enough to ensure a shift to mild deflation in late 2024.
- Based on current monetary trends, Sweden will enter recession later this year or in early 2024.
- Investors should expect the currency to weaken further as the Riksbank presides over a weakening economy but will be reluctant to raise rates further during a recession.
- Equity trends are liable to continue to be dominated by global or external factors, but an entry point should become available in late 2023 or early 2024.

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