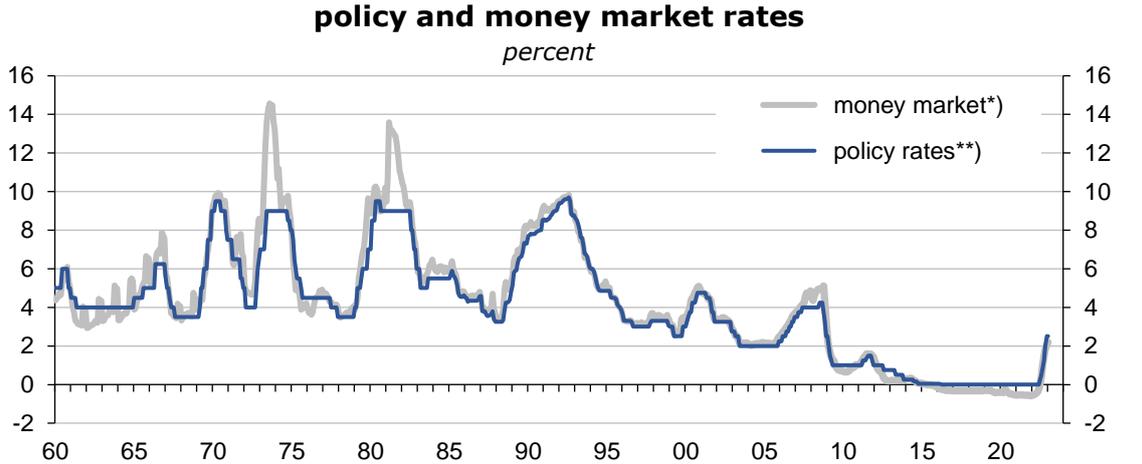


# Capital markets – a new era has begun

Mainz, January 11, 2023 | Dieter Wermuth

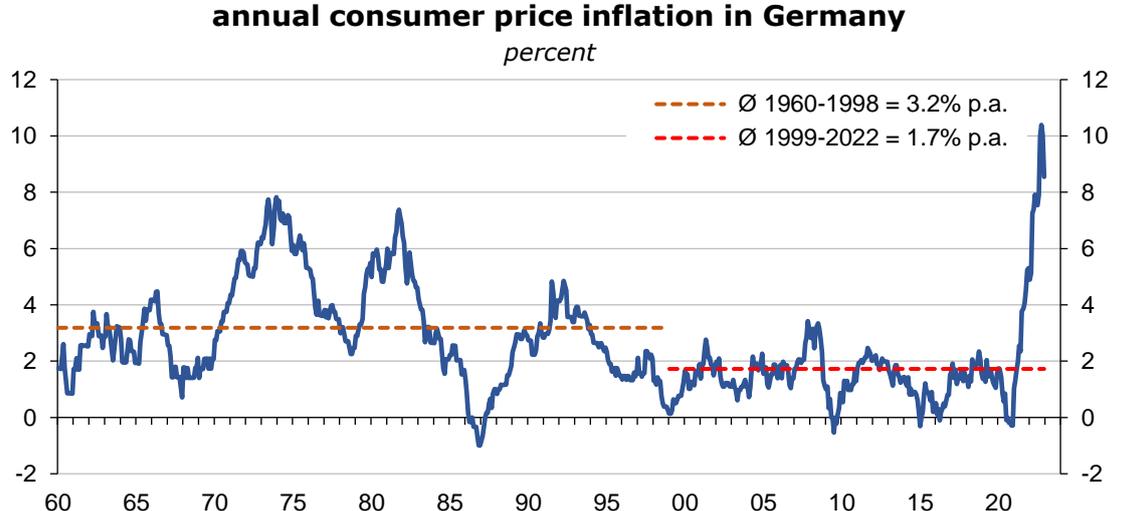
One thing I am certain of: European money market rates will not fall again by more than 1,450 basis points as from 1981 to the end of 2021. Similarly for ECB policy rates: over the coming decades they will not fall as much as between mid-1992 and spring 2016 – from 9 ½% to zero. For almost six and a half years, to the end of July 2022, they had then be kept at the zero bound.



\*) until 1998 3m Fibor, from 1999 to present 3m Euribor  
 \*\*) until 1984 Bundesbank Lombard rate, from 1985 to 1998 Bundesbank repo rate, from 1999 to present ECB interest rate for main refinancing operations

source: Deutsche Bundesbank, design & research: Uwe Richter ©UR

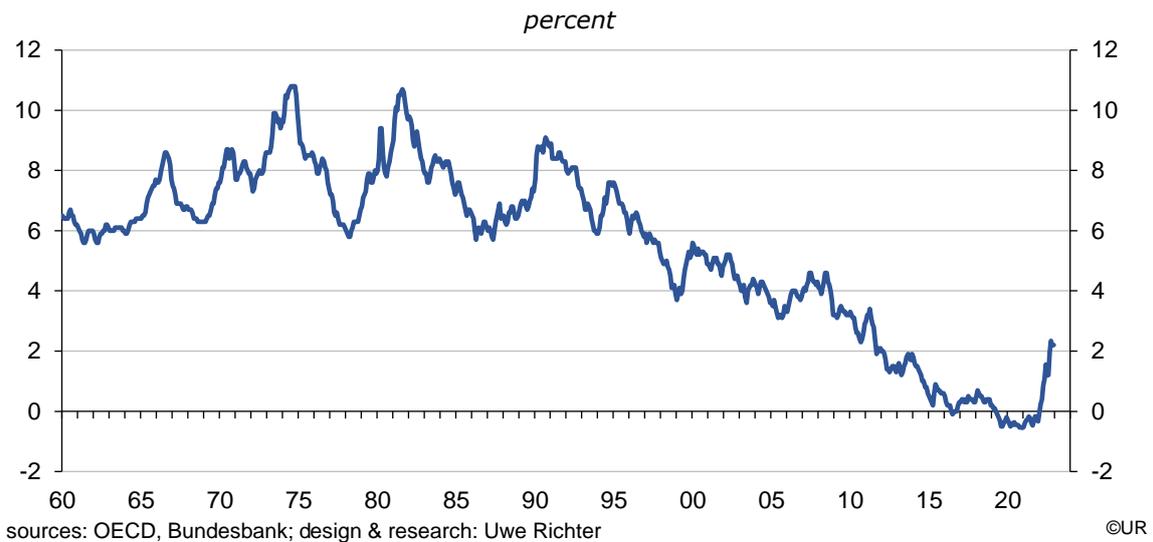
During those long decades German inflation rates had come from almost 8% to less than 0%, with large ups and downs around the downward trend. This had been the main reason for the secular decline of short-term interest rates. The disinflationary period lasted until the end of 2020, then, over the course of just a few quarters, consumer price inflation rates rose from -0.5% to more than 10%; they fell to 8 ½% y/y in December. Inflation of this magnitude had last been seen in 1951, shortly after the Second World War.



sources: Deutsche Bundesbank; own calculations, design & research: Uwe Richter ©UR

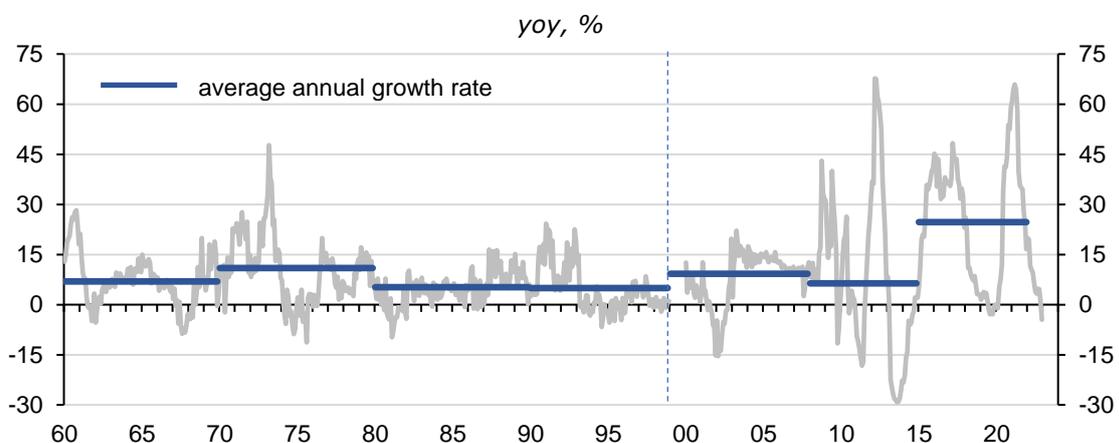
Since inflation was on a long-term downtrend, with deflation a serious risk at the end of the process, both the Bundesbank and its successor, the ECB felt the need to reduce policy rates – which in turn gave a strong support to bond markets. Between 1981 and the end of 2021 prices of 10y Bunds increased by 110%, an annual average of 1.9%. At least at the beginning, investors had also benefited from high current yields. The managers of bond portfolios became rich thanks to an excellent performance in real, and especially in nominal terms that lasted four decades. They couldn't do wrong, it seemed.

### 10-year Bund yield



The other reason for the lasting and unprecedented performance of bond markets had been the banks' more than generous supply with central bank money, the sum of cash and bank deposits at the central bank. It became increasingly easy – and cheap – to raise funds for capital market investments. It is hardly an exaggeration to say that those who dared to borrow from banks or capital markets had money thrown after them. The Eurosystem became a money printing machine which moved an ever growing share of government debt onto the books of national central banks.

### central bank money<sup>\*)</sup>



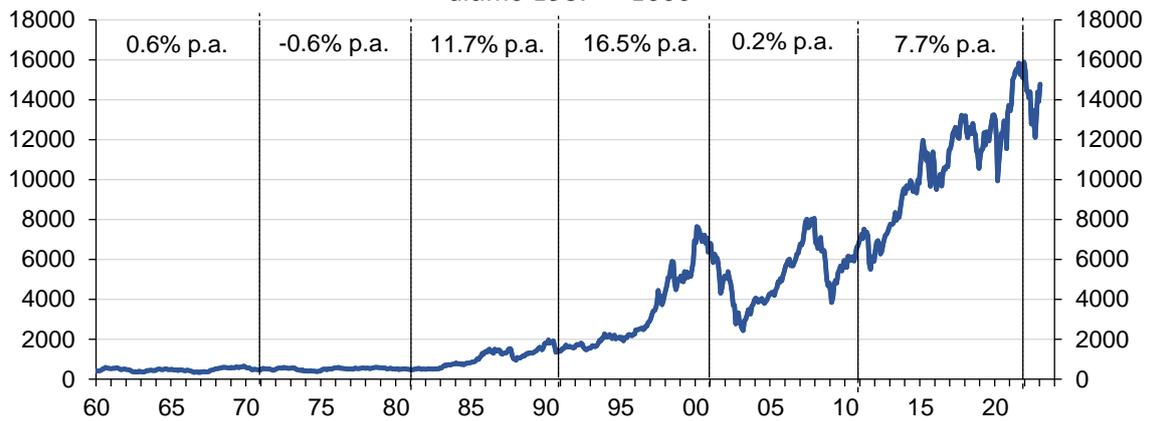
<sup>\*)</sup> until 1998: bank notes in circulation plus banks' deposits held at the Bundesbank,  
from 1999 to present bank notes in circulation plus banks' deposits held at the Eurosystem

sources: Bundesbank, ECB; own calculations; design & research: Uwe Richter ©UR

Falling bond yields meant ever more attractive earnings yields of equities – risk premia rose, and stock prices followed. There was in the wake of the 2007/2009 Great Financial Crisis a large setback, but stocks became quickly the investment vehicle of choice again. Markets were dominated by the fear of missing out (FOMO) and reached valuations which appear, in retrospect, as wholly irrational. From 1980 to the end of 2021 the average annual performance of the DAX (a performance index) was no less than 8.9%. For comparison: Germany’s average annual consumer price inflation rate had been just 1.9% in this period.

**German stock index - DAX\*)**

*ultimo 1987 = 1000*



\*) until 1980 price index, from 1981 to present performance index; monthly, end of period; last value: 14774 (Januar 10, 2023)

sources: Deutsche Bundesbank, Deutsche Börse, own calculations; design & research: Uwe Richter

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The great correction began around the end of 2021. At the time, inflation adjusted yields of 10-year government bonds were -5.6% on the basis of year-on-year inflation rates prevailing at the time, or about -3% on the basis of (low) medium-term inflation expectations. “Normal” nominal yields would be around plus 3%, though: 1% for the trend growth rate of (labor) productivity plus 2% for the ECB inflation target.

**DAX/nominal GDP ratio\*)**

*1991=100*



\*) until 1990 West Germany; 22Q4 nominal GDP: own estimate

sources: Bundesbank, Stat. Bundesamt; own calculations; design & research: Uwe Richter

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Not only bonds, but equities as well were hugely overvalued at the end of 2021. If I take the ratio of the stock market index DAX to Germany's nominal GDP as a proxy for the price-to-earnings of the stock market as a whole (which does not exist as a time series), I must conclude that it has never been as high, at least since 1929, higher than it had been before the popping of the Dotcom bubble in March 2000.

The question is whether something like normality has been reached after last year's correction of bond and stock prices. As to bonds, progress has been significant: the yield of 10-year Bunds is now 2.2% and thus not far from the 3% "equilibrium". But it all depends on whether the ECB will indeed be able to move actual inflation towards 2% in the medium term. According to analysts' recent forecasts it will take until 2025 for actual (not expected) inflation to reach 2%.

A cautionary note is in order at this point: inflation rates have come down very quickly over the past three or four months, implying that the 2% target could be reached much earlier than generally expected. Over the three months to November 2022, German import prices have fallen at an annualized (seasonally adjusted) rate of 23.3%, industrial producer prices at a rate of 20.9%. Fallen!! Applying this approach to consumer prices yields a December inflation rate of just 0.4%. The weak world economy, the stagnation of domestic value added and the recovery of the euro exchange rate all play a role. Add to this that the all-important hourly wages for the economy as a whole were just +1.9% y/y in Q3 (more recent data are not yet available). Bond yields could therefore go down again. On the other hand, October hourly wages in the construction industry were 4.6% y/y, pointing in the other direction.

Also keep in mind that the central banks of the Eurosystem, the main buyers of government debt, intend to withdraw their support by shrinking their balance sheets again – which would drive up yields.

Equities are still very expensive, especially after the rebound in the second half of last year. This recovery occurred even though the outlook for economic growth and profits has lately been revised down. Higher bond yields are another strong headwind. If I just look at the DAX/GDP ratio I have no problem to predict that the German stock market could fall by about one third from here.

The ECB, for its part, will keep its foot on the brake and seems to plan raising policy rates by another 150 basis points between now and June or July. Since the euro area labor market remains surprisingly robust (given the stagnation of real GDP) it will not suffer much from a more restrictive monetary policy. In addition, the ECB intends to follow actual rather than expected inflation data – and these are still unacceptably high on a year-over-year basis. This is what matters for the foreseeable future.

To conclude I would say that capital markets are, or will soon be, on the way to a situation determined by the real economy. Since labor productivity grows by just under 1% annually, average returns from investments in capital markets will be quite modest from here on.



<sup>\*)</sup> per hour worked; until 1991 West Germany

source: Statistisches Bundesamt; own calculation; design & research: Uwe Richter

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Two clearly distinct periods lie behind us: the time of rising inflation and interest rates in the seventies, followed from 1981 to the end of 2021 by falling inflation rates and the risk of deflation, accompanied by an expansionary monetary policy and overvalued bond and stock markets. We have now entered, probably for the next couple of decades, an era of more moderate valuations and returns, perhaps also with less volatility. Reality is catching up with financial investors.