M.M.WARBURG & CO
BANK

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Monetary policy and the stock market

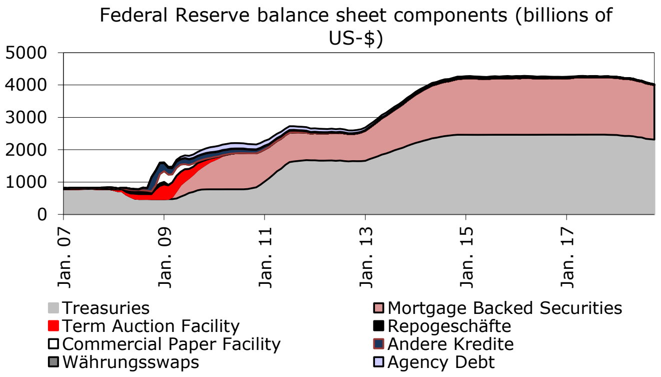
For the first time in ten years, the balance sheets of the largest Western central banks have not continued to expand in 2018. Next year, they will probably shrink for the first time in eleven years. In other words, monetary policy is starting to normalize gradually from a long period of extreme accommodation.

The US central bank (Fed) has raised the target range of its policy interest rate seven times since the end of 2016 to 2.00-2.25%. The dot plot from the last FOMC meeting indicates another interest rate hike for the December meeting. There is some uncertainty about the number of rate changes in 2019, but the consensus expectation is for three more steps. That would bring interest rates to the long-term "neutral level," the level at which monetary policy is neither accommodative nor restrictive and thus implies a constant inflation rate. The Fed already allowed its bond purchasing program (QE3) to run out at the end of 2014. It then began reducing its balance sheet in October 2017 by not (fully) reinvesting the proceeds from maturing bonds. While the amount was initially USD 10 billion per month, it has been expanded to USD 50 billion now, thus reaching the maximum monthly reduction. Altogether, the balance sheet has decreased from a high of about USD 4.5 billion to just under USD 4.2 billion.

The situation in the euro zone is different, but it seems that monetary policy there, though subject to great uncertainty (Italy), will move very slowly towards normalization. The ECB is still a long way from reducing its balance sheet, but it is relatively certain that its bond purchasing program will run out at the end of the year.

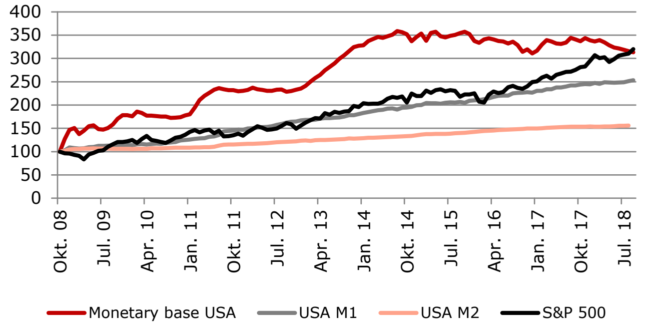
The main refinancing rate (0.00%) and the deposit facility (-0.40%) will remain unchanged until far into 2019, but we expect a cautious first interest rate hike in October 2019 or thereafter. The Bank of England has already ended its asset buying program and is keeping its balance sheet roughly constant now. It has already taken its first two interest rate steps.

Overall, this means that the global monetary base (central bank balance sheet) will gradually decline in the coming years. At the same time, policy interest rates will also very slowly follow the Fed's steps.



Is this more restrictive monetary policy necessarily a reason for the stock markets to worry? Let's consider the reduction of central bank balance sheets first. No connection can be established empirically between stock market trends and the monetary base. On the other hand, there appears to be a (relatively loose) connection between the dynamics of money supply aggregates (M1, M2, and M3) and the stock markets. One might object that a smaller monetary base should lead to a smaller money supply and hence to falling stock prices. However, it is by no means the case that the connection between the monetary base and money supply is clear. After all, no expansion of the money supply is necessary for the creation of book money, which makes up the greatest part of the money supply. Contrary to widespread opinion, the creation of book money does not require customer deposits that are passed on as loans, nor are existing surplus central bank balances (part of the monetary base) a prerequisite for lending. This is clearly seen in the United States, where the monetary base already peaked in 2014, but the money supply continued to grow at a comparatively constant pace without interruption. Accordingly, one may ask the question in regard to the development of money supply aggregates. For the euro zone and the United States, it appears that the momentum of money supply development has worsened during this year. That could be held partly responsible for poor stock price performance. At the leading edge of the time series, however, momentum has improved, as shown by recently released data from the euro zone (M2 +4.2%, M3: +3.5%) and the United States (M2 +6.0%). With the improvement of momentum, there should thus be no further negative impetus for the stock markets.

USA: Monetary base and money supply



So, while we do not regard development of the monetary base or the money supply as a critical factor, impetus for the stock markets may be expected from the interest rate side, especially due to further interest rates steps in the United States. Now, what would rising interest rates mean for the stock markets? Simply put, higher interest rates would entail an increase of corporate refinancing costs and thus reduce profitability. At the same time, rising interest rates would be reflected in a higher discounting factor, which would lower the net present value of future cash flows and hence the "fair" stock price. However, this line of reasoning overlooks three points. First, sales revenue is a nominal figure and should therefore also grow on rising inflation, which makes higher nominal interest rates necessary in the first place. Second, higher refinancing costs will only lead slowly to an increase of average refinancing costs, especially if one considers the longer maturities of corporate debts. Third, sectors and the companies within them are positioned differently, sometimes completely so, and therefore sensitivity to interest rates varies greatly. That is shown by our calculations testing the interest rate sensitivity of stocks. We have tested, at the level of individual stocks and sectors for the S&P 500 and the Stoxx 600, how changes in stock prices relative to the corresponding index react to market interest rate changes over various periods. The calculated elasticity over various periods shows a relatively homogeneous picture for both regions with clear winners and losers. In the first instance, the losers on rising interest rates are defensive or high-dividend companies, which definitely makes sense because dividends can be replaced by increased market yields. These include sectors like telecommunications, utilities, REITs, and food producers. On the other hand, the winners include the financial sector, with asset managers, insurance companies, and banks, which can profit from a higher interest margin.

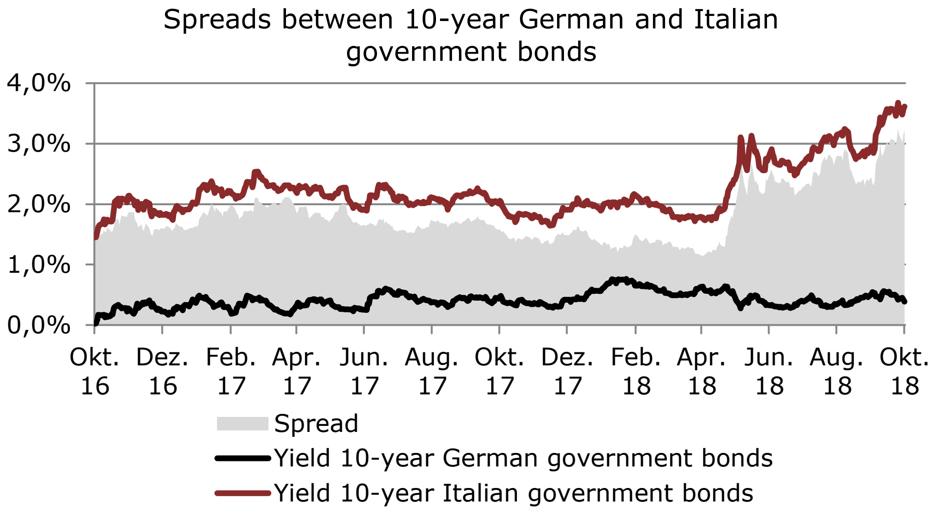
Overall, we expect that future reductions of central bank balance sheets globally will have little impact on stock markets. On the interest rate side, however, significant and also negative effects may be expected, with our calculations showing that even rising yields will have winners on the stock market – provided monetary policy does not overshoot.

Weekly outlook for Oct. 29-Nov. 2, 2018

	June	July	Aug.	Sept.	Oct.	Nov.	Release
DE: Unemployed, change in 000s	-15	-7	--10	-23	-14		October 30
DE: Unemployment rate, s.a.	5.2%	5.2%	5.2%	5,1%	5,1%		October 30
DE: Inflation rate, m/m – flash	0.2%	0.2%	0.0%	0,6%	0,2%		October 30
DE: Inflation rate, y/y – flash	2.1%	2.0%	2.0%	2,3%	2,4%		October 30
DE: Retail sales, m/m	1.1%	-1.1%	-0.1%	0,2%			October 31
DE: PMI, manufacturing	56.9	56.9	55.9	53,7	52,3		November 2
EUR19: Business climate	1.4	1.3	1.2	1,2	1,1		October 30
EUR19: Inflation rate, m/m – flash	0.3%	-0.5%	0.2%	0,4%	0,3%		October 31
EUR19: Inflation rate, y/y – flash	2.0%	2.1%	2.0%	2,1%	2,2%		October 31
EUR19: Unemployment rate, s.a.	8.2%	8.2%	8.1%	8,1%			October 31
	1Q 2018		2Q 2018		3Q 2018		
EUR19:GDP q/q	0.4%		0.3%		0.3%		October 30
EUR19: GDP y/y	2.5%		2.1%		1.8%		October 30

MWB estimates in red

Chart of the Week: The Italian “debt drama”



The Italian "debt drama" has reached a new height. Tax cuts and the introduction of minimum incomes have caused the debt load to rise and create the need to increase new borrowing further. The Italian government intends to raise net new borrowing by another 2.4% of gross domestic production (GDP). But it will have to think again. Its application has not been accepted by the European Commission, which is threatening penalties if EU regulations are not observed. In a countermove, Brussels wants to limit new borrowing to 1.5%. Market participants seem worried, as shown by the outflow of EUR 42 billion in foreign capital, including EUR 24 billion in government bonds alone, from May to the end of August. For its part, rating agency Moody's downgraded Italy's credit rating last Friday. Spreads between Italian and German government bond yields have increased significantly since mid-year, reaching a new high of 327 points in recent days. That is still below the peaks of the 2011 Italy crisis (558 points), but far above the average of the last ten years (156 points). To prevent a "collapse" and further widening of spreads, Rome and Brussels need to reach agreement quickly. However, a permanent solution can only be brought about if Italy manages to exercise budget discipline on its own and create conditions for sustained economic growth from which the country will be able to finance and ultimately reduce its debts.

Market data overview

	As of	**Change versus**				
	26.10.2018	19.10.2018	25.09.2018	25.07.2018	25.10.2017	29.12.2017
Stock marktes	13:24	-1 week	-1 month	-3 months	-1 year	YTD
Dow Jones	24985	-1,8%	-5,7%	-1,7%	7,1%	1,1%
S&P 500	2706	-2,2%	-7,2%	-4,9%	5,8%	1,2%
Nasdaq	7318	-1,8%	-8,6%	-7,7%	11,5%	6,0%
DAX	11128	-3,7%	-10,1%	-11,5%	-14,1%	-13,9%
MDAX	23254	-3,7%	-10,9%	-12,9%	-10,6%	-11,2%
TecDAX	2488	-6,1%	-12,8%	-14,7%	0,8%	-1,6%
EuroStoxx 50	3108	-3,2%	-9,1%	-10,4%	-13,5%	-11,3%
Stoxx 50	2857	-2,9%	-6,9%	-8,3%	-9,4%	-10,1%
SMI (Swiss Market Index)	8625	-2,8%	-4,4%	-4,4%	-5,1%	-8,1%
Nikkei 225	21185	-6,0%	-11,5%	-6,3%	-2,4%	-6,9%
Brasilien BOVESPA	84084	-0,2%	6,9%	4,8%	9,7%	10,1%
Russland RTS	1096	-2,7%	-6,2%	-4,0%	-1,9%	-5,0%
Indien BSE 30	33349	-2,8%	-9,0%	-9,5%	0,9%	-2,1%
China Shanghai Composite	2599	1,9%	-6,6%	-10,5%	-23,5%	-21,4%
MSCI Welt (in €)	2006	-1,6%	-5,0%	-4,3%	3,0%	0,9%
MSCI Emerging Markets (in €)	949	-1,2%	-5,4%	-10,2%	-11,5%	-13,4%
Bond markets						
Bund-Future	160,16	76	229	-221	-88	-152
Bobl-Future	131,62	47	125	-30	43	1
Schatz-Future	112,02	8	30	5	-15	5
3 Monats Euribor	-0,32	0	0	0	1	1
3M Euribor Future, Dec 2017	-0,30	0	0	0	-7	0
3 Monats $ Libor	2,51	3	13	17	113	81
Fed Funds Future, Dec 2017	2,27	-2	1	5	57	0
10 year US Treasuries	3,08	-12	-1	11	64	67
10 year Bunds	0,35	-8	-20	2	-13	-7
10 year JGB	0,11	-4	-2	5	4	7
10 year Swiss Government	-0,03	-5	-9	3	-3	10
US Treas 10Y Performance	554,99	0,5%	0,2%	-0,8%	-4,0%	-4,6%
Bund 10Y Performance	617,87	0,4%	1,5%	0,0%	2,4%	1,7%
REX Performance Index	485,23	0,2%	0,8%	0,1%	0,7%	0,9%
US mortgage rate	0,00	0	0	0	0	0
IBOXX AA, €	0,81	-1	-7	5	6	13
IBOXX BBB, €	1,80	3	6	21	54	56
ML US High Yield	6,91	13	38	34	96	75
JPM EMBI+, Index	780	-0,1%	-1,2%	-2,4%	-6,6%	-6,7%
Convertible Bonds, Exane 25	7180	0,0%	-3,7%	-3,0%	-1,7%	-2,9%
Commodities						
CRB Spot Index	415,73	-0,2%	-0,2%	-4,0%	-3,3%	-3,9%
MG Base Metal Index	310,85	-0,3%	-1,1%	-2,7%	-10,8%	-13,4%
Crude oil Brent	76,08	-5,0%	-7,6%	2,8%	30,3%	14,2%
Gold	1235,01	0,7%	2,7%	0,5%	-3,2%	-5,3%
Silver	14,63	0,0%	0,8%	-6,0%	-13,5%	-14,0%
Aluminium	1973,00	-1,1%	-3,5%	-3,3%	-9,2%	-12,5%
Copper	6253,00	0,4%	-1,0%	-0,1%	-10,5%	-13,2%
Iron ore	72,22	1,1%	5,2%	13,1%	18,9%	1,3%
Freight rates Baltic Dry Index	1516	-3,8%	4,6%	-14,4%	-3,6%	11,0%
Currencies						
EUR/ USD	1,1340	-1,1%	-3,7%	-3,0%	-3,8%	-5,4%
EUR/ GBP	0,8863	0,6%	-1,0%	-0,2%	-0,6%	-0,2%
EUR/ JPY	127,02	-1,6%	-4,3%	-2,1%	-5,5%	-5,9%
EUR/ CHF	1,1360	-0,5%	-0,1%	-2,1%	-2,8%	-2,9%
USD/ CNY	6,9443	0,2%	1,1%	2,6%	4,6%	6,7%
USD/ JPY	112,42	-0,1%	-0,5%	1,3%	-1,2%	-0,2%
USD/ GBP	0,78	2,0%	2,9%	2,8%	3,6%	5,8%

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