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The characteristics of the current central bank hiking cycle

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THE CHARACTERISTICS OF THE CURRENT CENTRAL BANK HIKING CYCLE

Over the last 18 months, monetary policymakers across the world have raised interest rates by cumulatively large amounts in a synchronous fashion. In this issue of *Infocus* EFG chief economist Stefan Gerlach looks at the data and analyses the frequency and step sizes of the hikes and reaches some interesting conclusions.

In the last year or two, central banks across the world have raised interest rates. Because these rate increases have been very large, have been adopted by so many central banks and have occurred almost simultaneously, this is arguably one of the most dramatic periods of monetary policy tightening in history.

Inflation rates far above central banks' targets were responsible for driving these rate increases. Since monetary policy impacts the economy with long lags and these rate increases occurred relatively recently, it is too early to see a definitive response in the inflation data. However, it is informative nonetheless to review this episode of monetary tightening to see what we can learn from it.

There are many obvious questions. For instance, how much have central banks raised rates? How many times have they increased them? Have they proceeded at about the same pace, per increase or on average per month?

Of course, different groups of central banks have behaved differently. For instance, Latin American central banks started tightening monetary policy earlier than other central banks and did so even more dramatically. Here we focus on a set of nine central banks in (what the IMF would refer to as) advanced economies which responded, as shown below, in broadly similar ways.

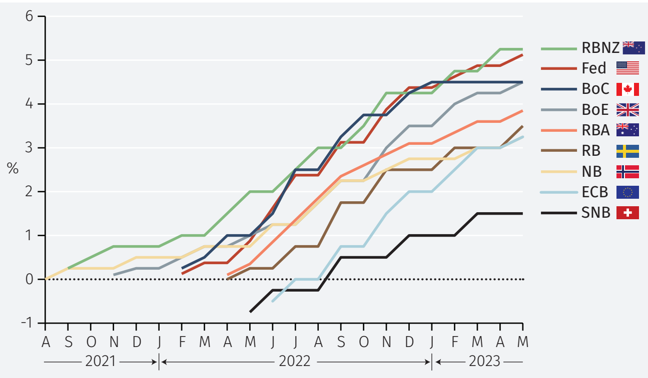
In Figure 1, we look at perhaps the two most important central banks: the Federal Reserve (Fed) and the European Central Bank (ECB); four in English-speaking economies: the Bank of England (BoE), Bank of Canada (BoC), Reserve Bank of Australia (RBA) and the Reserve Bank of New Zealand (RBNZ); and three smaller European central banks: the Swiss National Bank (SNB), the Norwegian Norges Bank (NB) and the Swedish Riksbank (RB).

Characteristics of this tightening cycle

Figure 1 shows these banks' policy rates, starting from the end of the month before they adopted the first interest rate increase in the current episode. Several interesting observations can be made based on the data in the graph.

Most obviously, these central banks started raising interest rates at different points in time, ranging from September 2021 to July 2022. Those that started first increased interest rates slowly, before taking larger steps.

1. Central banks' policy rates



Sources: BIS and central bank websites. Data as at 17 May 2023.

2. First month of tightening cycle

NB	RBNZ	BoE	Fed	BoC	RBA	RB	SNB	ECB
Sep 21	Oct 21	Dec 21	Mar 22	Mar 22	May 22	May 22	Jun 22	Jul 22

Source: EFG calculations on data from BIS and central bank websites, data as at 17 May 2023.

They also started from different levels, ranging from -0.75% to 0.25%. Those central banks that first started to raise rates did so from positive levels (except for Norges Bank, which started at zero). Those that started last, the SNB and the ECB (for which we use the deposit rate which served as the ECB's de facto policy rate in recent years), started from below zero. This suggests that the countries starting from negative interest rates had experienced stronger-than-average deflationary pressures.

3. Starting level of interest rates (%)

SNB	ECB	RBA	Fed	NB	RB	RBNZ	BoE	BoC
-0.75	-0.5	-0.1	0	0	0	0.1	0.25	0.25

Source: EFG calculations on data from BIS and central bank websites, data as at 17 May 2023.

The number of interest rate increases also differs among central banks. While the Bank of England has raised interest rates 12 times, the Swiss National Bank has only done so four times.

4. Number of interest rate increases to date

BoE	RBA	RBNZ	Fed	NB	BoC	ECB	RB	SNB
12	11	11	10	10	8	7	6	4

Source: EFG calculations on data from BIS and central bank websites, data as at 17 May 2023.

There are also large differences among central banks regarding how much they have raised interest rates. While the Federal Reserve and the Reserve Bank of New Zealand have raised rates by 500 bps (or 5 %), the Swiss National Bank has merely raised them by 2.25%.

5. Cumulative increase in interest rates (%)

RBNZ	Fed	BoC	BoE	RBA	ECB	RB	NB	SNB
5	5	4.5	4.4	3.75	3.75	3.5	3.25	2.25

Source: EFG calculations on data from BIS and central bank websites, data as at 17 May 2023.

It is also interesting to look at the average 'step size', that is, the cumulative increase in interest rates divided by number of interest rate increases. Six of the central banks have taken steps on average of between 45-58 bps, while the remaining three have taken average steps of between 33-37 bps.

6. Average step size (basis points)

RB	BoC	SNB	ECB	Fed	RBNZ	BoE	RBA	NB
58	56	56	54	50	45	37	34	33

Source: EFG calculations on data from BIS and central bank websites, data as at 17 May 2023.

The 'speed' at which they have raised interest rates, measured as the cumulative change interest rates divided by the number of months they have been raising rates, can also be computed. These speeds are broadly similar, ranging from 38 bps per month for the ECB to 16 bps per month for the Norges Bank.

7. Speed (basis points per month)

ECB	Fed	BoC	RBA	RB	RBNZ	BoE	SNB	NB
38	36	32	31	29	26	26	20	16

Source: EFG calculations on data from BIS and central bank websites, data as at 17 May 2023.

What can be learnt about central bank interest rate setting?

Looking at these characteristics one by one provides no information on how they are related. For instance, have central banks that raised interest rates from lower levels taken larger steps? Is there an inverse relationship between step size and number of occasions a central bank has raised interest rates?

To understand these issues better, it is useful to look at the correlations between the characteristics discussed above (see Figure 8). To focus on the important relationships, only correlations that are statistically significant are indicated.[1]

Figure 8 leads to several conclusions:

- Central banks that started early tended to start from a higher level, have raised interest rates more often and by cumulatively more, but took smaller steps.
- The speed at which they raised rates did not vary with these other characteristics.

Conclusions

These data show that there was natural ordering between central banks in terms of their propensity to raise interest rates.[2] Those that felt the greatest need started early and did so from a relatively high level, increased rates many times and by cumulatively large amounts, but took smaller steps. However, the speeds at which they did so varied little among them, implying that the frequency of interest rate increases and the choice of step size offset each other.

The Bank of England had the greatest propensity to raise interest rates, followed, in declining order, by the Reserve Bank of Australia, Norges Bank, the Federal Reserve, the Reserve Bank of New Zealand, the Bank of Canada, the Riksbank, the European Central Bank and the Swiss National Bank.

A key question investors ask is whether this dynamic will work also in reverse. While history does not repeat itself, it is a plausible hypothesis that it will. If that happens, the central banks that led the process of raising rates may be among the first to cut them. Time will tell.

8. Correlations (significant at 10% level)

	Months since start	Starting level	Number of increases	Cumulative change	Step size	Speed
Months since start	1					
Starting level	0.6	1				
Number of increases	0.7	0.7	1			
Cumulative change		0.7	0.7	1		
Step size	-0.6		-0.8		1	
Speed						1

Source: EFG calculations on data from BIS and central bank websites, data as at 17 May 2023.

[1] The significant level is 10%.
[2] The conclusions in this and the next paragraph follows from applying principal components analysis to the data and ordering the central banks according to the first principal component.

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