

DANMARKS NATIONALBANK

FX INTERVENTIONS IN A FIXED EXCHANGE RATE REGIME

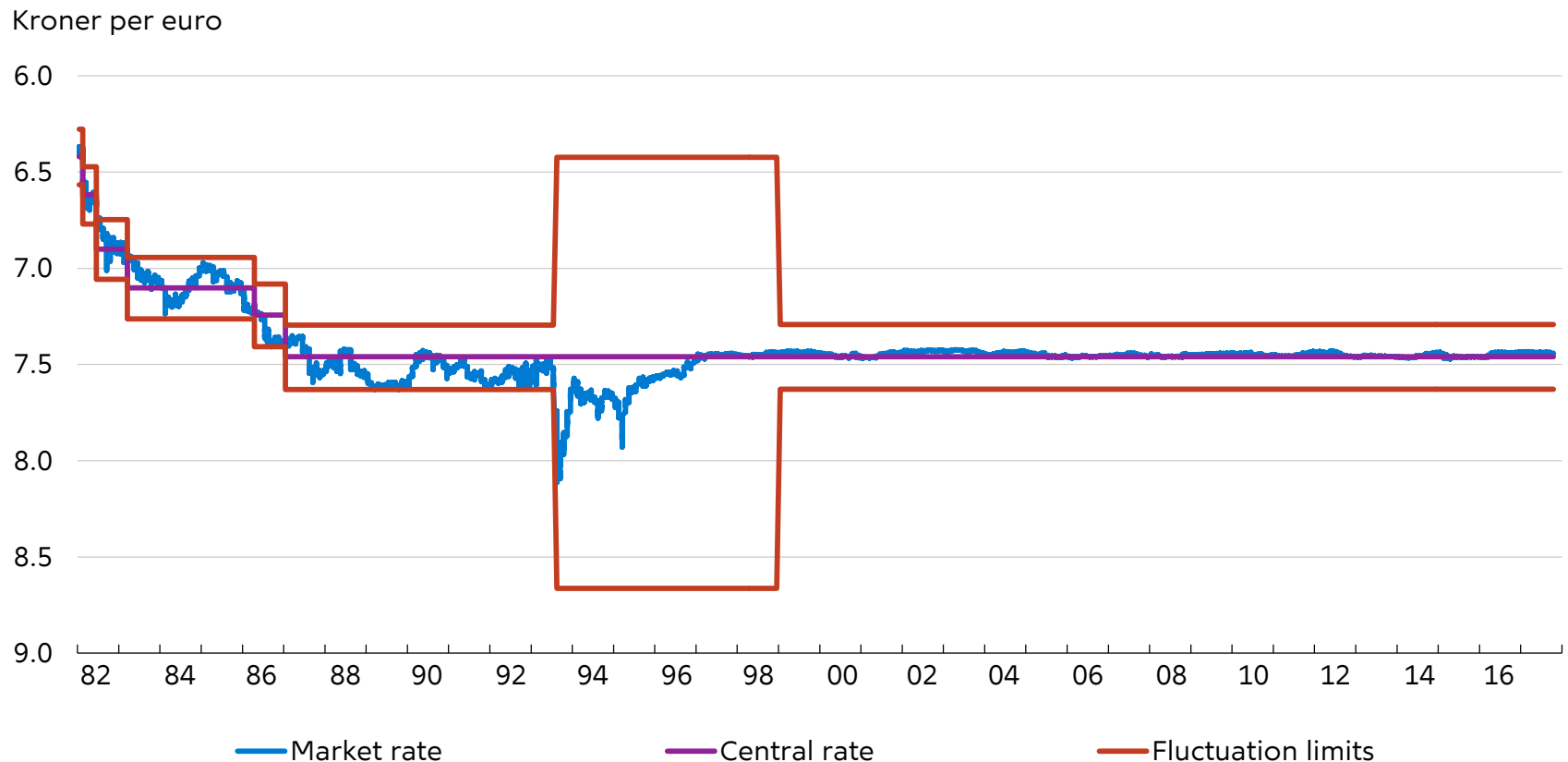
Niels Lynggård Hansen, CEPR, Jerusalem, 7 December 2017



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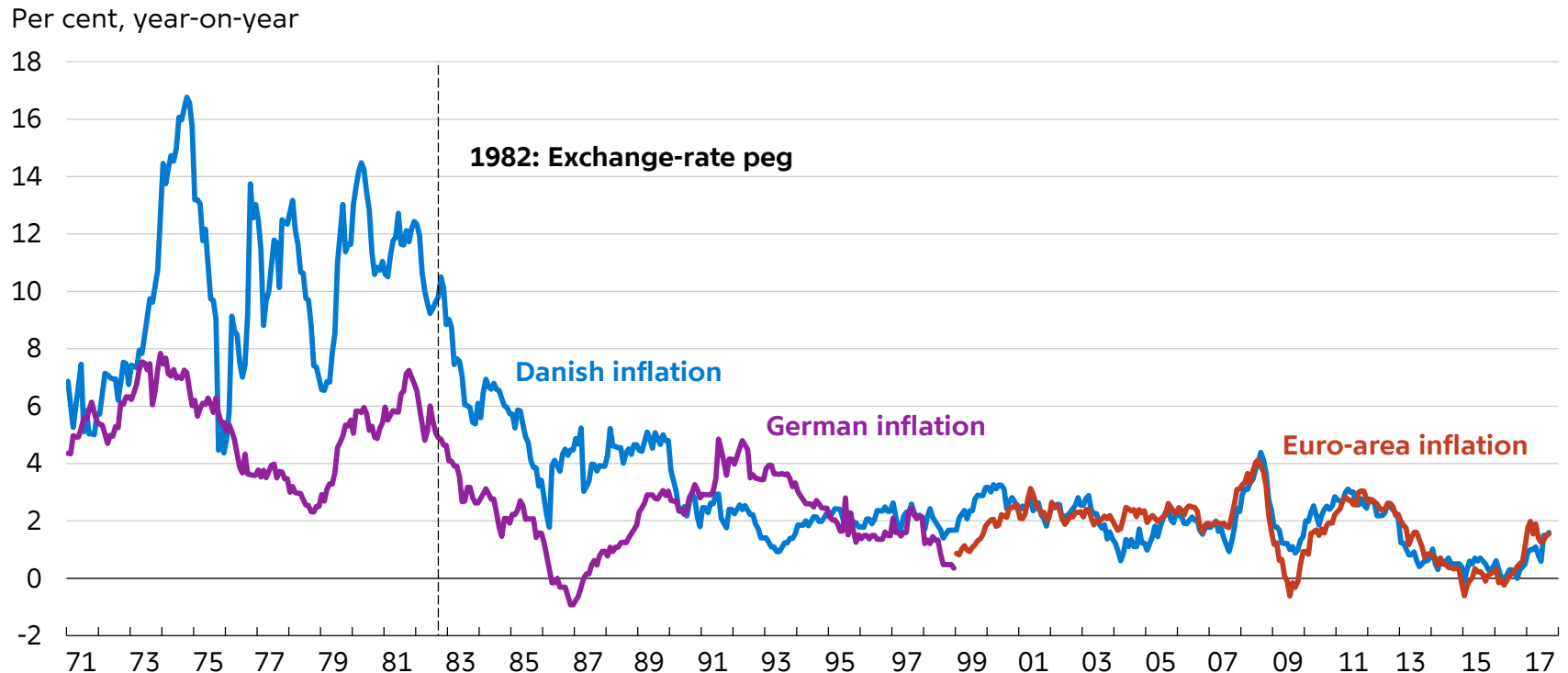
The Danish exchange rate regime

Unchanged central parity for three decades



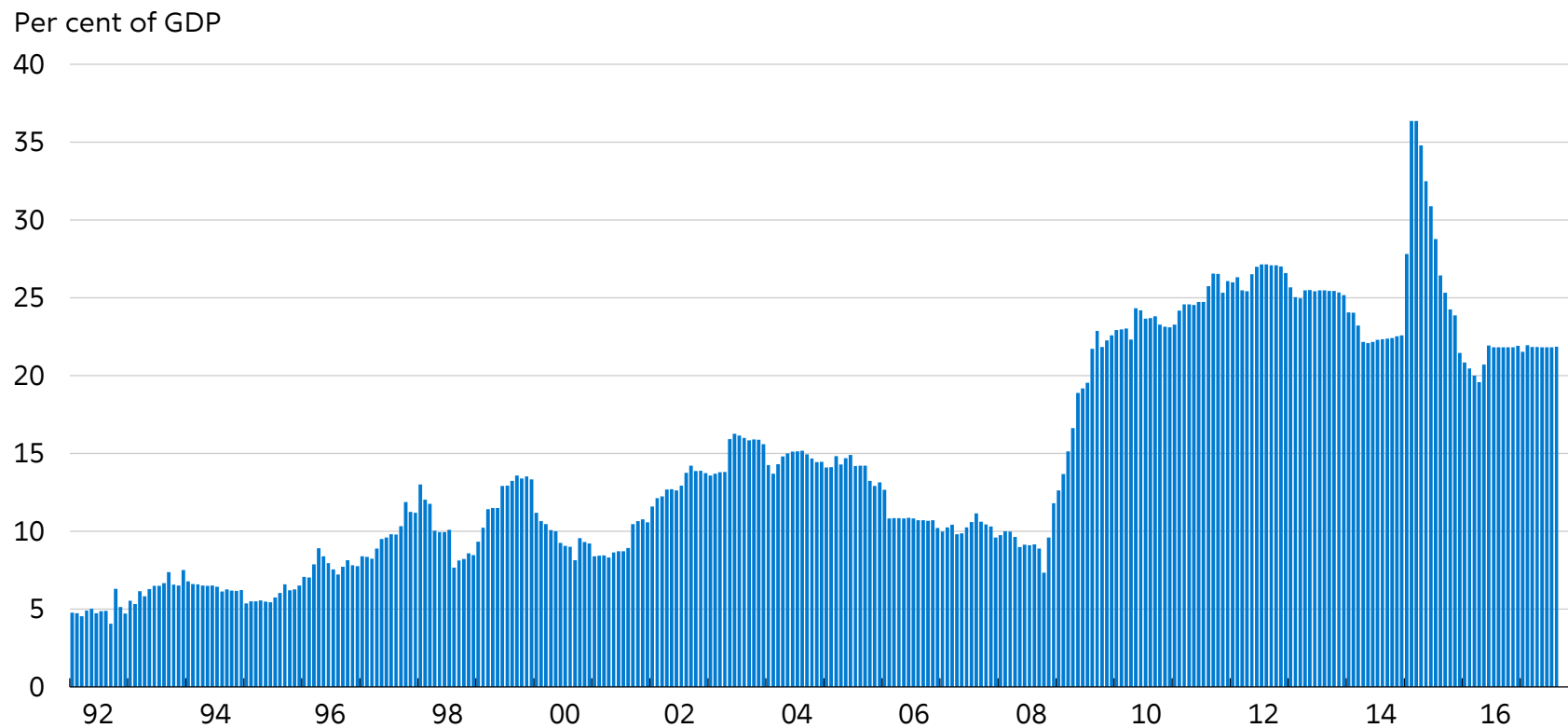
Note: reverse scale. The DEM/DKK rate has been converted to a EUR/DKK rate before 1 January 1999. 1 euro = 1.95583 D-mark
Source: Danmarks Nationalbank.

Fixed exchange rate introduced after a period of high and volatile inflation



Source: Statistics Denmark and Thomson Reuters Datastream.

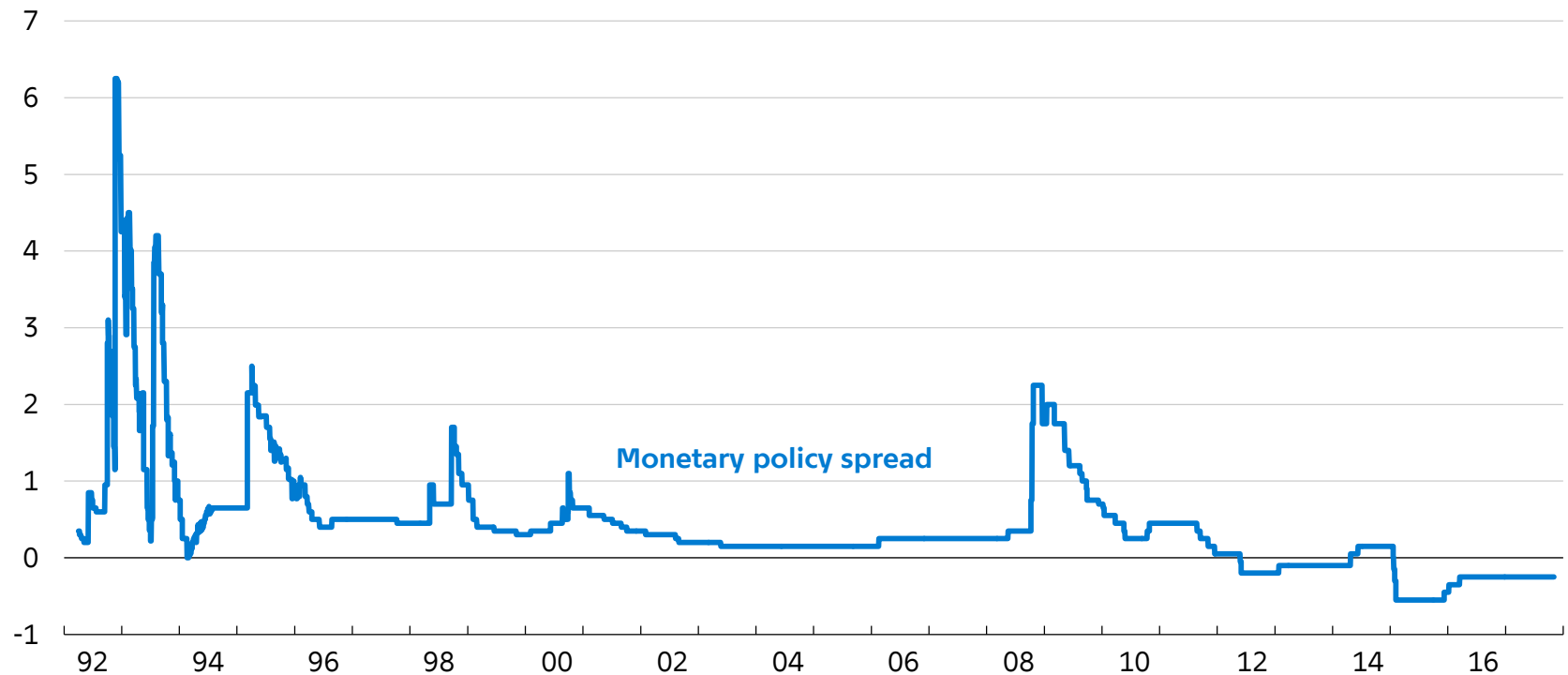
Pressure reflected in FX reserve ...



Note: In per cent of nominal GDP at yearly frequency. GDP for 2017 is from Danmarks Nationalbank's projection.
Source: Danmarks Nationalbank and ECB.

... and in the monetary policy spread

Percentage points



Note: The interest rate spread is the spread between Danmarks Nationalbank's rate of interest on certificates of deposits and the ECB's rate. Until 14 October 2008, the ECB's main refinancing rate is used. After this date the ECB's deposit rate is used.

Source: Danmarks Nationalbank and ECB.

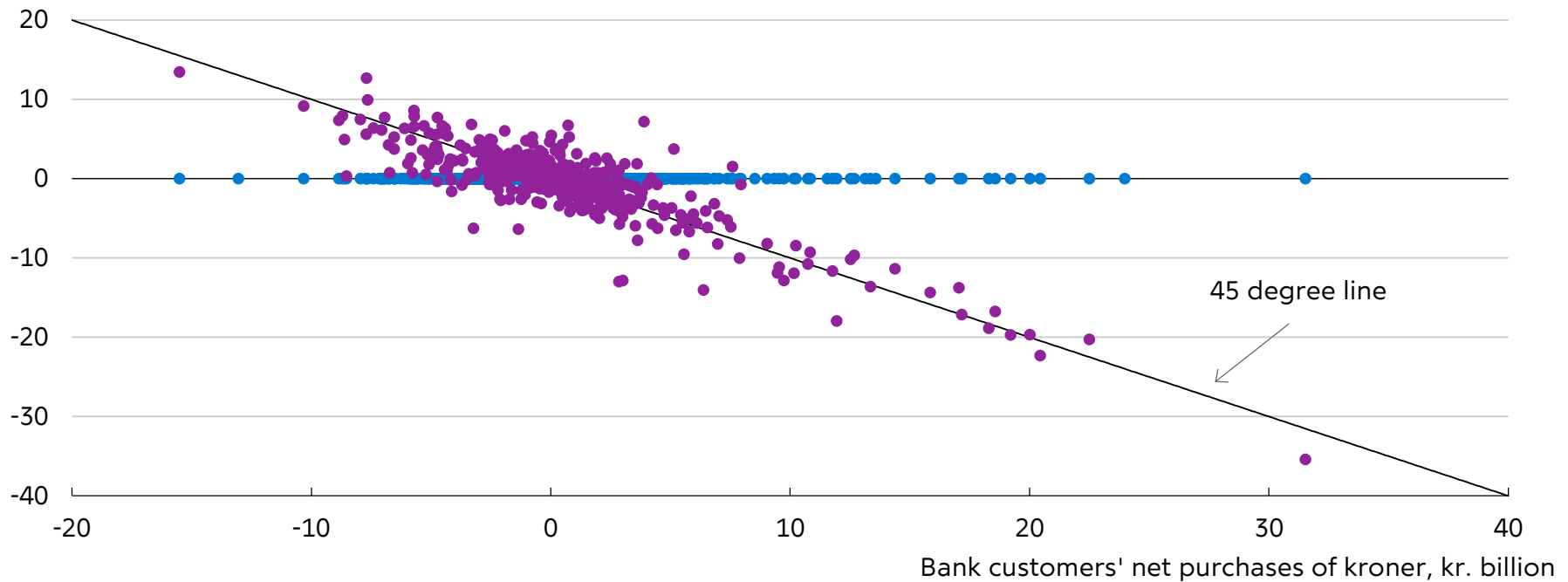
Effect of Interventions



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Interventions reflect private sector demand for kroner

Danmarks Nationalbank's intervention purchases of kroner, kr. billion

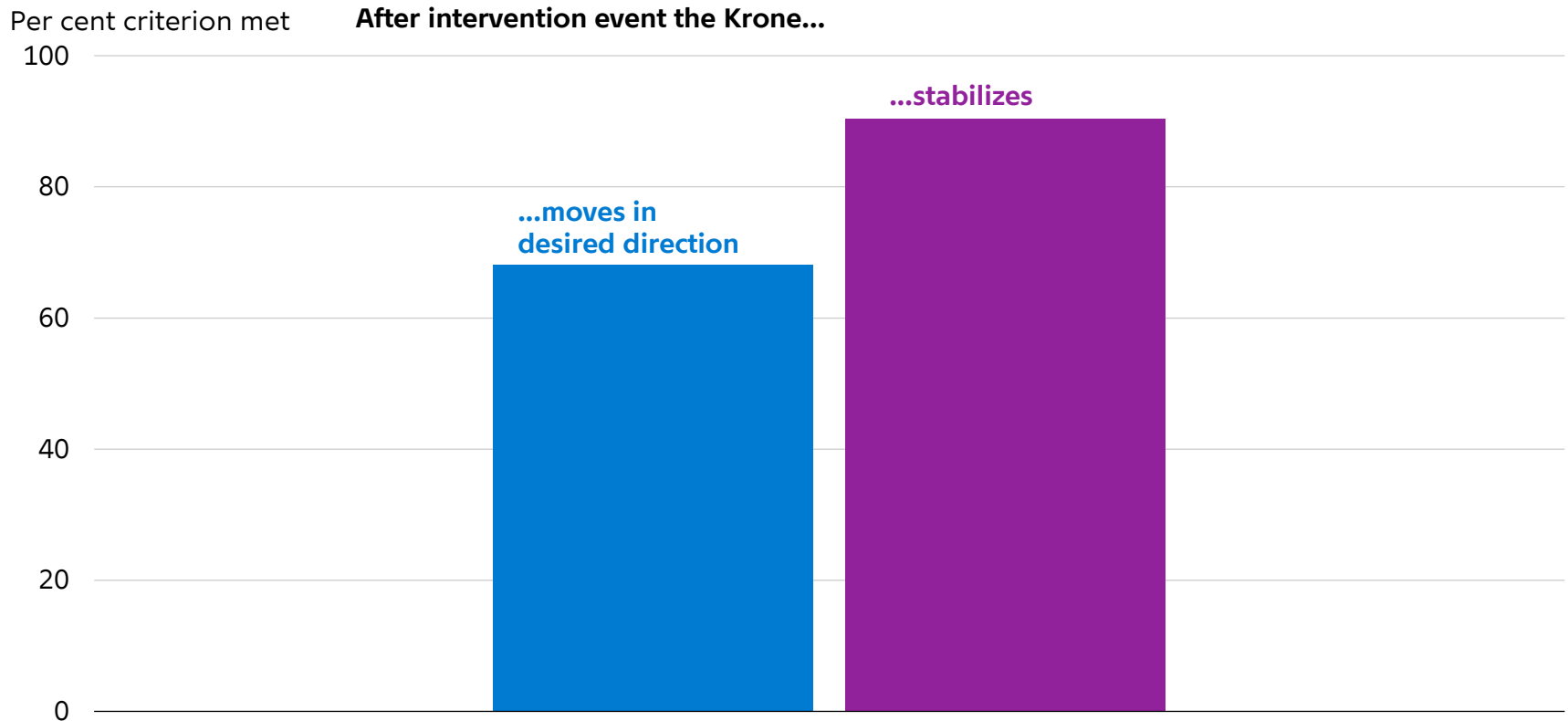


• Bank customers' purchases on days without intervention • Bank customers' purchases on days with intervention

Note: Around 88 per cent of the observations are on the zero line, corresponding to Danmarks Nationalbank having intervened on approximately 12 per cent of all trading days from January 2002 to October 2016..

Source: Danmarks Nationalbank..

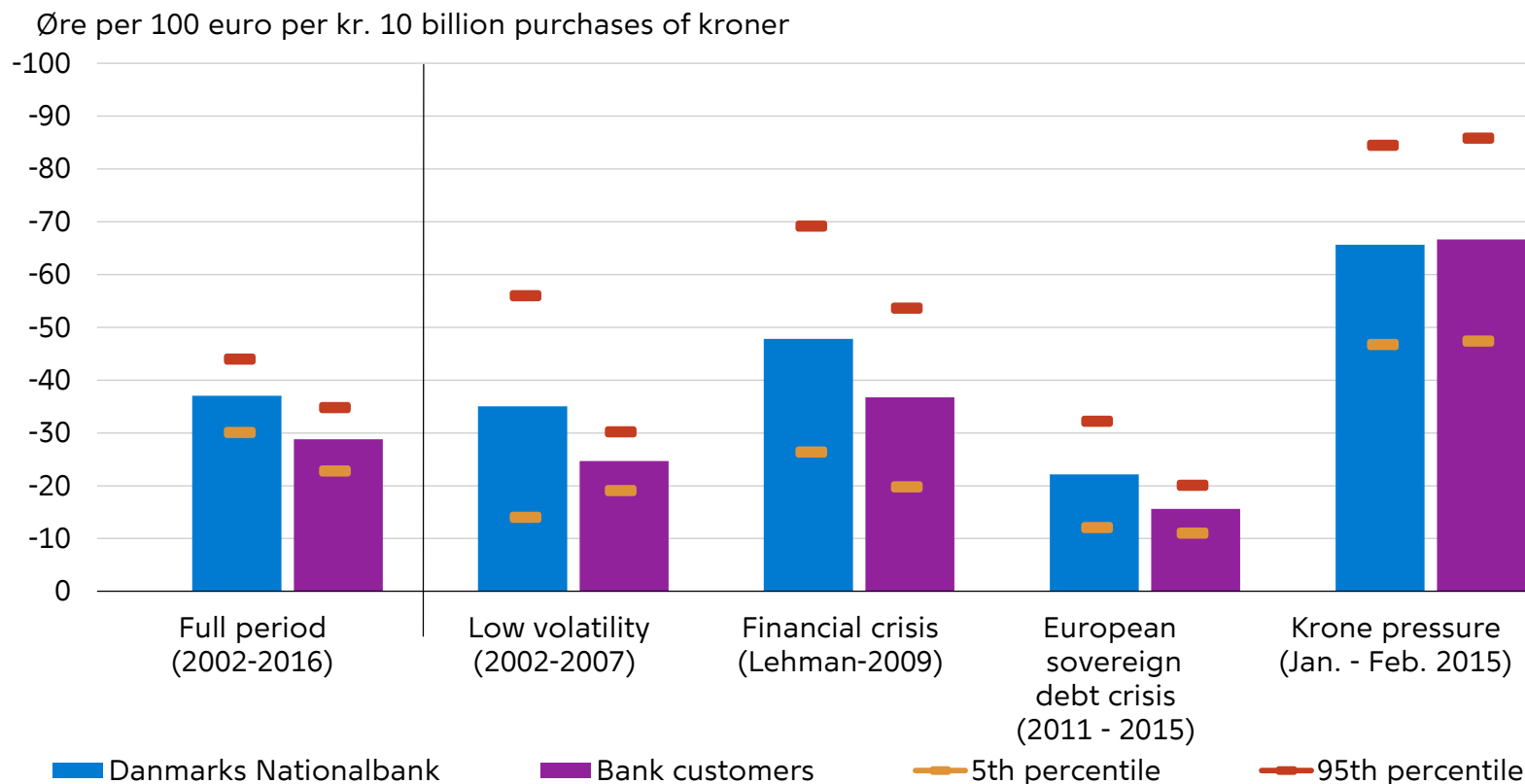
Clear indication of effect of interventions



Note: The exchange rate is closing prices at 5 pm Danish time.

Source: Effects of Danmarks Nationalbank's Interventions in the Foreign Exchange Market, Morten Spange and Jonas Sørensen.

Interventions effective across sub-periods

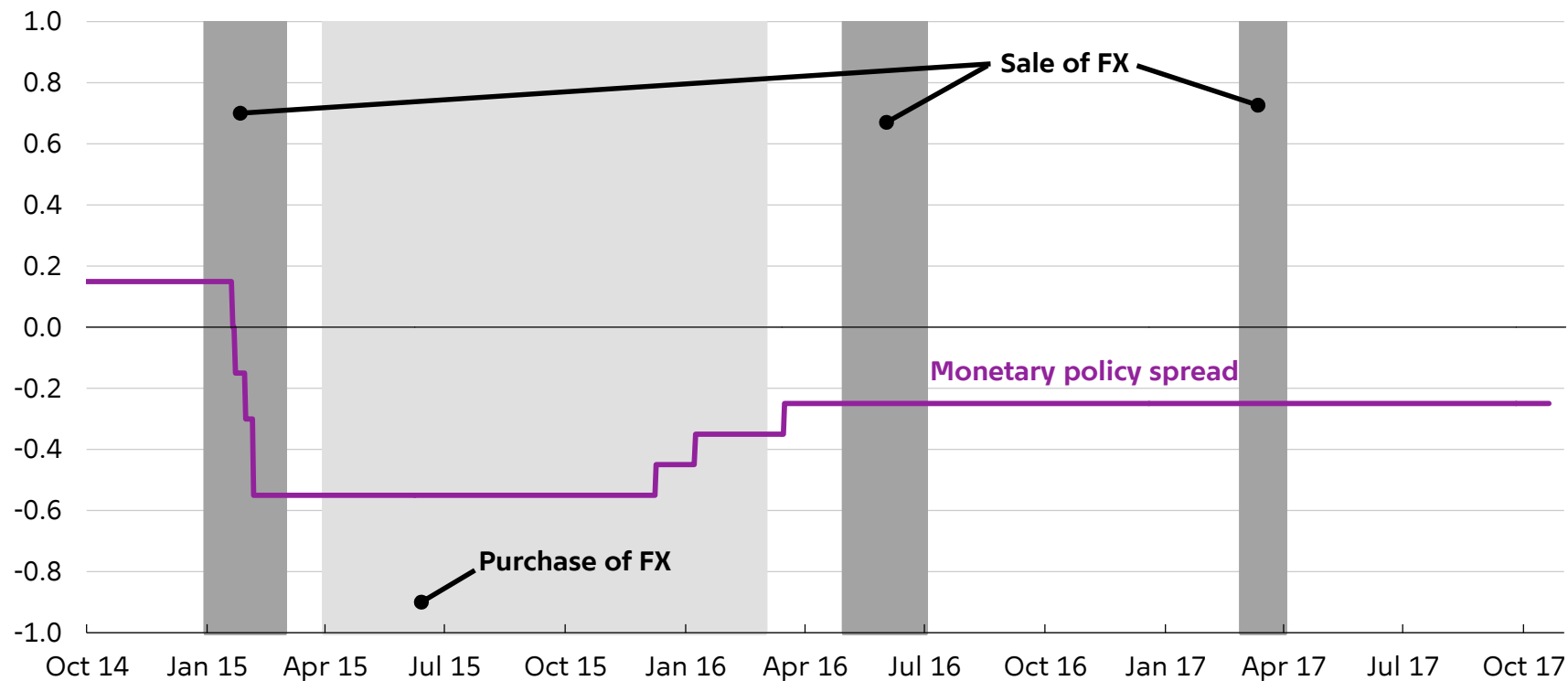


Note: Reverse scale. The chart illustrates the impact on the krone rate of krone purchases in the amount of kr. 10 billion, measured at the central rate of kr. 746.038 per 100 euro.

Source: Effects of Danmarks Nationalbank's Interventions in the Foreign Exchange Market, Morten Spange and Jonas Sørensen.

Interest rate spread to the ECB became negative in early 2015

Interest rate spread, percentage points

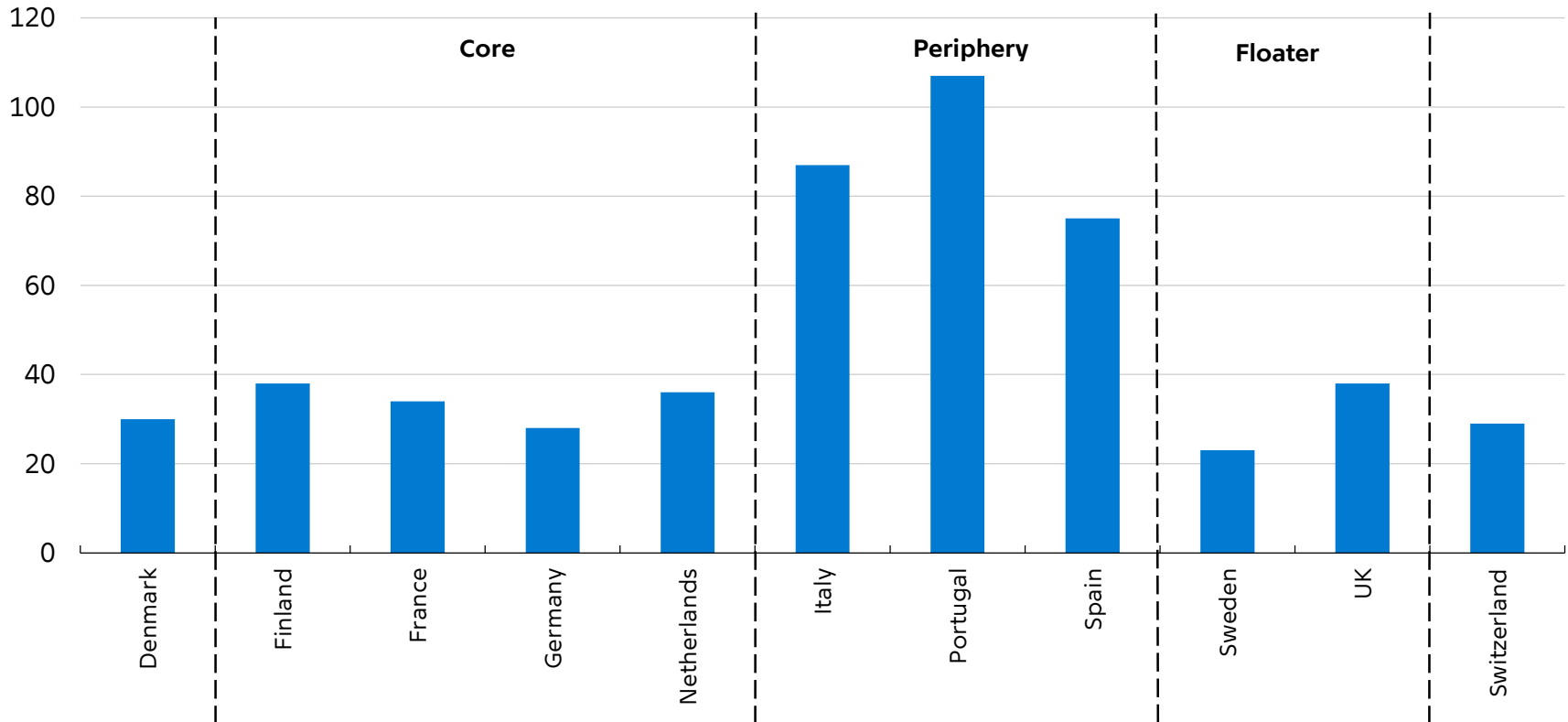


Note: Shaded quarters illustrate months where Danmarks Nationalbank intervened for more than kr. 5 billion (net). Monetary policy spread is the spread between Danmark Nationalbank's CD rate and the ECB's deposit rate.

Source: Rio, Thomson Reuters Datastream, Danmarks Nationalbank and own calculations.

Decline in long-term Danish yields in line with core euro area countries

Basis points decline in 9-year government bond yields



Note: Aggregate decline in sovereign bond yields in two-day windows following 17 pieces of ECB communication.
Source: Thomson Reuters Datastream, ECB and own calculations.

THANK YOU!

