

BP/19-01/02

IMF Advice on Unconventional Monetary Policies to Smaller Advanced Economies

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IEO Background Paper
Independent Evaluation Office
of the International Monetary Fund

IMF Advice on Unconventional Monetary Policies to Smaller Advanced Economies

May 14, 2019

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ABBREVIATIONS

AE	advanced economy
AML	anti-money laundering
BoC	Bank of Canada
CFT	combating the financing of terrorism
CHF	Swiss franc
CNB	Czech National Bank
CZK	Czech koruna
DKK	Danish krone
DN	Danmarks Nationalbank
ECB	European Central Bank
EUR	European Department (IMF)
FSAP	Financial Sector Assessment Program
FX	foreign exchange
G-7	Group of Seven
GFC	Global Financial Crisis
HICP	European Union harmonized index of consumer prices
MCM	Monetary and Capital Markets Department (IMF)
PLPT	price-level-path targeting
PN	Policy Note (ahead of Article IV consultation)
QE	quantitative easing
RES	Research Department (IMF)
SNB	Swiss National Bank
SPR	Strategy, Policy, and Review Department (IMF)
UMP	unconventional monetary policy

EXECUTIVE SUMMARY

This paper assesses IMF advice on monetary policies to five smaller advanced economies that had to deal with the effects of the global financial crisis and spillovers from policy actions taken by the major central banks, particularly the U.S. Federal Reserve and the European Central Bank. Canada is covered in Chapter 1, while four economies (Czech Republic, Denmark, Sweden, and Switzerland) are covered in Chapter 2.

Central banks in these countries took a number of unconventional steps: Denmark moved to negative policy interest rates and the Czech Republic and Switzerland introduced exchange rate floors. Canada and Sweden went in different directions—for a while—on the use of monetary policy to address financial stability risks, with the latter “leaning against the wind” for a few years before changing course.

IMF advice: The degree of IMF engagement varied across countries. Fund staff were generally not consulted on policy innovations by the authorities prior to their introduction. Staff, however, did provide advice on possible options in advance in some cases, generally analyzed the likely effects of these policies very soon after their adoption, and offered public support, often after an active internal debate. Fund staff supported the Bank of Canada’s decision to use macroprudential policies instead of monetary policy to manage financial stability risks, but also supported the Riksbank’s decision during 2010–13 to use monetary policy to manage such risks and its decision in 2015 to reverse course.

Assessment: Central bank officials found the Article IV consultations a useful validation of their novel actions. The Fund’s public support was valued by officials, as was the ability to assess these actions as part of the overall macroeconomic policy framework. However, the Fund could have done more to analyze alternative policy mixes, for example in Canada. Central bank officials typically preferred to consult with counterparts at other central banks or BIS experts when looking for external advice. The Fund’s 2017 review of the experience with negative interest rates, five years after the Danish action, was regarded as useful although somewhat slow in arriving. The Fund’s work on developing a macroprudential toolkit and on assessing the effectiveness of these policies was considered valuable and timely. In hindsight, the Fund could have been more proactive in developing a policy toolkit to help smaller advanced economies ease monetary policy as policy interest rates approached zero, particularly since the trend toward lower neutral real interest rates was evident prior to the crisis. The support given to opposing policies of the Bank of Canada and the Riksbank may reflect either a tendency for the Fund to be insufficiently critical of actions taken by central banks or possible shortcomings in internal IMF processes for ensuring consistent policy advice.

Chapter 1—Canada

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I. INTRODUCTION

1. This chapter examines the quality and influence of the IMF's advice to Canada on monetary policy over the period 2008–17. The case of Canada is particularly interesting for a couple of reasons. First, unlike its Group of Seven (G-7) peers, Canada did not resort to unconventional monetary policies (UMP) over the past decade other than innovating in forward guidance on policy interest rates for some time. Given its linkages with other advanced economies (AEs), particularly the United States, Canada could have been regarded as vulnerable to the effects of the Global Financial Crisis (GFC) and hence potentially in need of UMP. The IMF's advice to Canada thus provides a test of whether IMF staff could judge the resilience of the Canadian economy and modify their monetary advice accordingly, rather than provide cookie-cutter advice to all G-7 countries to carry out UMP.

2. Second, Canada provides a relevant case to study IMF staff advice on how to deal with financial stability risks, and particularly the role that monetary policy should play in dealing with such risks. Canada entered the GFC with buoyant housing markets and high household indebtedness, and a decade later that description still holds. Throughout the past decade, therefore, the Canadian authorities have faced the challenge of addressing housing market risks while also dealing with the traditional macroeconomic concerns of closing output gaps and keeping inflation near its target. IMF advice on policies to mitigate housing sector risks is therefore an important focus of this paper.

3. The case study is based on a review of Article IV reports and other relevant internal and external documents, as well as extensive interviews of Canadian policymakers (notably at the Bank of Canada) and IMF staff in charge of the work on Canada. The paper also draws on views expressed by several external observers—academics, financial market participants, and others familiar with IMF monetary policy surveillance of Canada.¹

4. Section II provides a factual description of pertinent macroeconomic and financial developments during 2008–17, and policies adopted by the authorities. Section III describes the IMF's engagement, covering its policy advice, and resource use. Section IV evaluates IMF engagement against the questions raised above, and Section V draws lessons and raises some issues for consideration both with respect to the IMF's future engagement with Canada and more broadly.

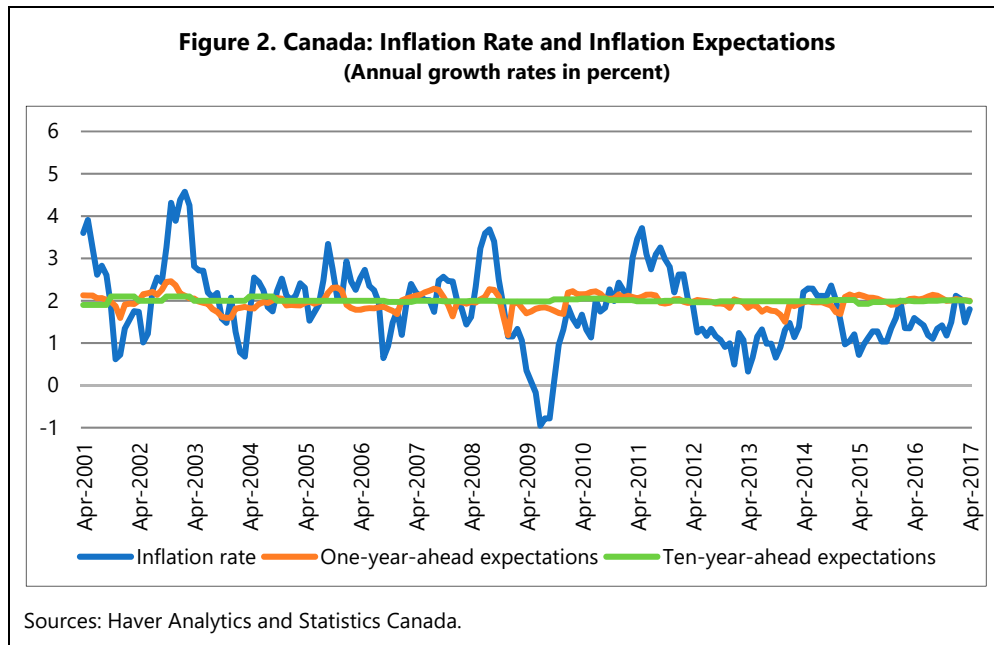
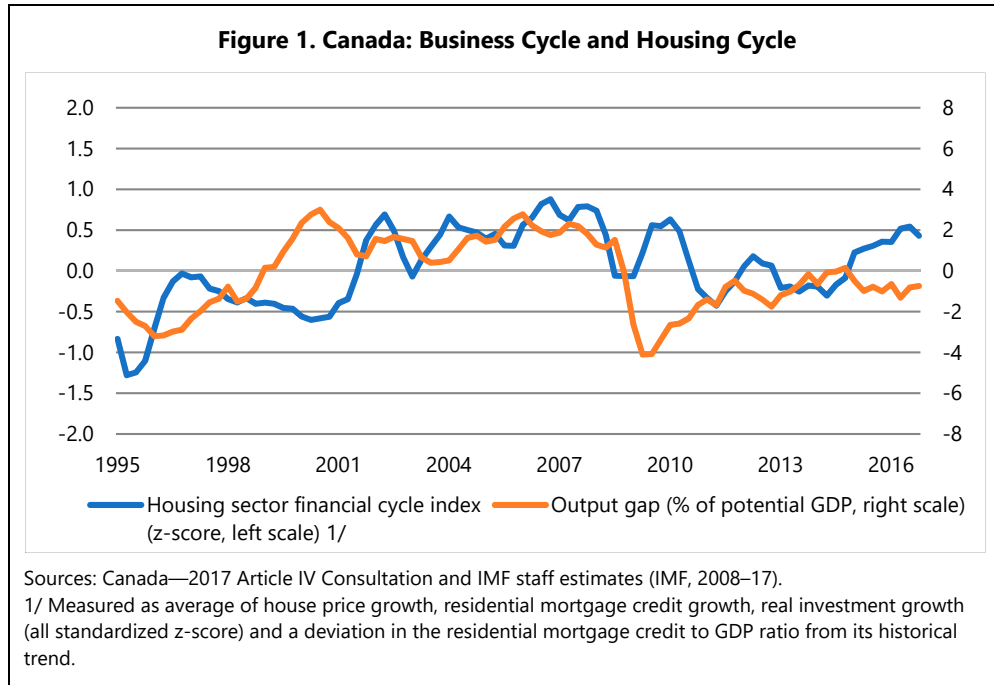
II. ECONOMIC DEVELOPMENTS AND POLICIES

A. Economic Developments

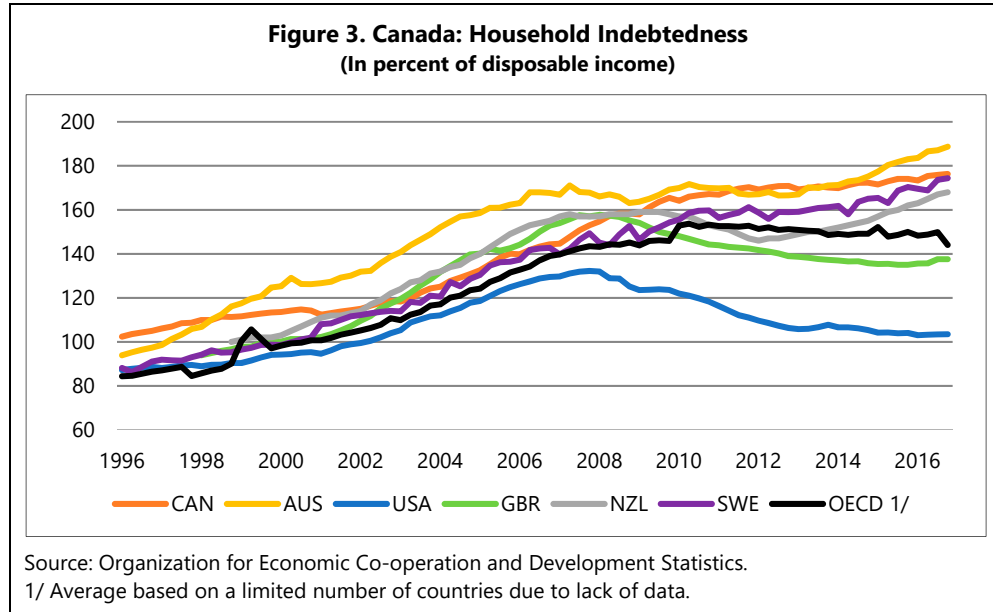
5. During the period under review, Canada's economy experienced two major adverse economic shocks: the GFC in 2008–09 and the commodity price slump in late 2014–mid-2015.

¹ Input from external observers came in part through a workshop organized by the Center of International Governance Innovation in Toronto on April 10, 2018.

Canada’s financial system proved resilient, however, “displaying remarkable stability” as described in the 2009 Article IV report (IMF, 2008–17). Nevertheless, financial stability risks were regarded as a concern mainly stemming from elevated house prices and high indebtedness of Canadian households, due in part to the low interest rates maintained to achieve output and inflation objectives.

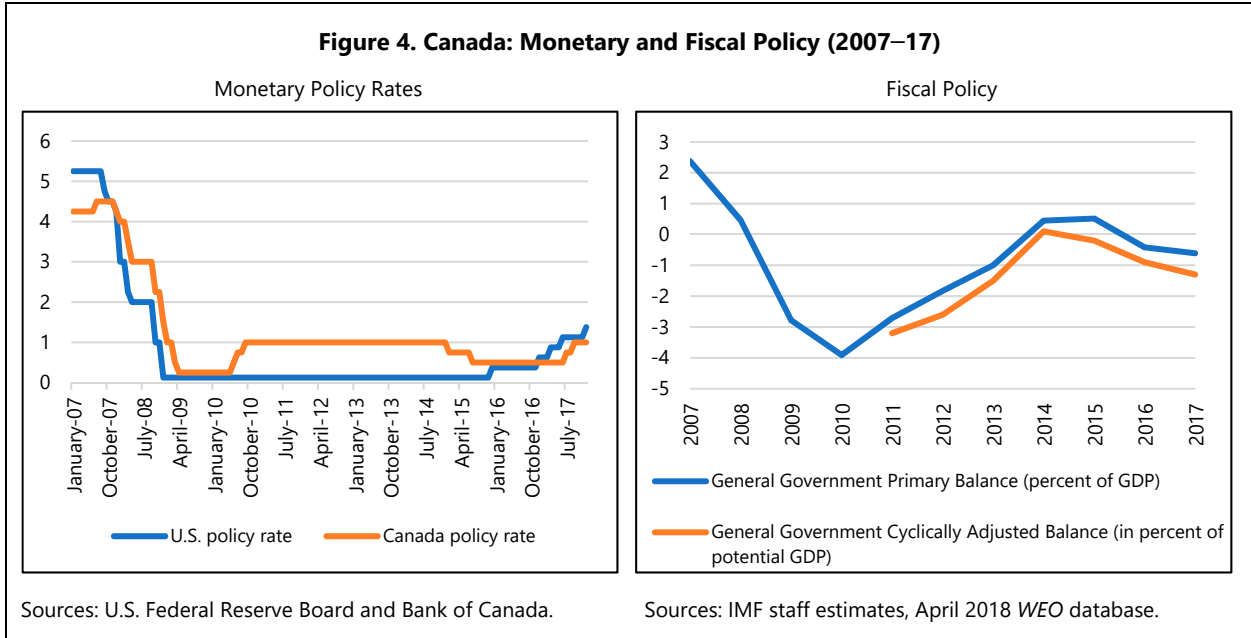


6. Macroeconomic and financial stability outcomes during 2008–17 were generally good, especially seen from an international perspective. Resource utilization fared well during the period under review (Figure 1), but after an initial rebound, inflation proved sluggish, remaining close to 1 percent (Figure 2). In addition, the trend increase in house prices and household indebtedness continued, and by some metrics real estate markets remained frothy and overheated (at least in some major cities, Figure 3).



B. Policies to Stabilize Output and Inflation

7. Canada used both monetary and fiscal policies actively to stabilize macroeconomic outcomes in the aftermath of economic shocks since 2008. In response to the GFC, the policy rate was dropped to what was then deemed the effective lower bound (0.25 percent), the Bank of Canada (BoC) provided ad hoc forward guidance on the future path of policy rates, and liquidity facilities were put in place and deployed to support banks and various market segments (Figure 4). Contrasting with Canada’s traditional conservative fiscal policy, the authorities not only embarked on a significant fiscal expansion (one of the largest among the G-7), but also purchased mortgage-backed securities to help alleviate stress in the mortgage market. As noted in the 2010 Article IV report, “the rapid turnaround of activity ... owes much to the government’s rightly-sized and well-targeted macroeconomic stimulus” (IMF, 2008–17). Similarly, following the commodity price shock the monetary policy rate was brought close to the lower bound and expansionary fiscal policies were adopted, though not just in response to the economic slump but also reflecting the policy agenda of the new Trudeau government that took office in late 2015. These measures were complemented by two other large programs that were not undertaken by the central bank but similar in some respects to UMP in other countries, one to allow the government to purchase insured mortgages from banks and the other to help businesses and consumers access credit so they could purchase or lease new vehicles and equipment.



8. Aside from a brief episode of forward guidance, the BoC did not venture into the realm of unconventional monetary policy. The BoC announced that the policy rate would be kept at the floor for about a year, conditional on the outlook for inflation. Indeed, within one year after the global financial crisis, the BoC exited its unconditional forward guidance. The policy rate was moved back up to 1 percent and the balance sheet of the BoC was normalized as inflation expectations remained anchored close to the target, and output and inflation rebounded, with the latter exceeding the target on the back of the commodity price rebound. This was also the signal to return to fiscal consolidation at the federal level, reflecting the policy agenda of the conservative government, which advocated a balanced budget and a reduction in the national debt (Conservative Party of Canada, Policy Declaration, 2011).

9. The rebound of inflation was not sustained, however, and sluggish growth together with falling commodity prices ushered in a period of postponed tightening and eventually renewed loosening of monetary policy. With a sluggish global recovery, structural factors depressing exports, and ongoing fiscal consolidation, monetary policy was left to carry most of the burden to sustain growth. Normalization of monetary policy settings did not start until the second half of 2017, when with inflation rising and projected to reach target over the policy horizon, the policy rate was raised twice on the back of the global recovery and continuing robust domestic demand.

C. Policies to Deal with Financial Stability Risks

10. The Canadian authorities have generally assigned financial sector policies to address financial stability risks related to household indebtedness and housing prices. As spelled out by Governor Poloz (Poloz, 2015a), monetary policy was not considered to be a tool to actively lean against the wind and would only be brought to bear if all other options were exhausted. In every year during 2009–17, except 2009, various authorities tightened financial policies related to the

housing and credit markets.² Key measures included tightening standards for government-backed insured mortgages (which cover the bulk of mortgage lending) and underwriting guidance, and capping debt service-to-income ratios for mortgage lending. More recently, some provinces introduced property transfer taxes on non-residents to deal with perceived speculation in key large cities.

D. Policy Frameworks

11. During 2008–17, Canada undertook two (regular) reviews and “renewals of its inflation control target.” The reviews included in-depth assessments by BoC staff and outside experts of its inflation targeting framework and concluded by preserving existing arrangements between the BoC and the rest of the government (BoC, 2016). On the financial stability issue, the first review concluded that monetary policy could have an occasional role in supporting financial stability, implying that “some flexibility might be needed regarding the time horizon over which inflation should be expected to return to target.” The second review concluded that “while the Bank’s thinking on the interaction of monetary policy and financial stability is evolving” ... “a risk management approach to monetary policy provides flexibility to incorporate financial stability considerations into monetary policy.”

12. In 2009, the BoC also developed a UMP toolkit in case it became necessary to deploy such tools. The BoC’s UMP framework initially consisted of forward guidance, quantitative easing (QE), and credit easing. The effective lower bound of the interest rate was then determined to be 25 basis points. If more stimulus were needed at that rate, the Bank would consider: (i) conditional statements about the future path of the policy rate that would affect the term structure; (ii) QE consisting of the outright purchase of financial assets; and (iii) credit easing through the purchase of assets in markets that were temporarily impaired but important for the functioning of the financial system (BoC, 2009). In December 2015, the BoC updated its UMP framework, adding negative interest rates and stating it believed the effective lower bound to be around minus 50 basis points (Poloz, 2015b).

13. Canada’s overall policy framework to deal with financial stability issues has multiple components, with coordination left to an ad hoc committee, the Senior Advisory Committee.³ Neither this committee nor its members have an explicit mandate for macroprudential oversight. BoC staff interviewed for this study noted that while they conduct in-depth analysis of financial stability risks as input into monetary policy decision-making, the BoC has a limited financial stability mandate. Without a formal institution to deal with system-wide financial stability, there

² For a comprehensive overview of the specific tightening measures, see Annex III of the staff report for the 2017 Article IV Consultation (IMF, 2008–17).

³ The Senior Advisory Committee is a discussion forum for financial sector policy issues, including financial stability and systemic vulnerabilities, chaired by the deputy minister of finance and including the Superintendent of Financial Institutions and representatives of the Deposit Insurance Corporation, the Bank of Canada, and the Financial Consumer Agency of Canada.

is no explicit macroprudential policymaking body or toolkit. Some supervisory, regulatory, and tax policies have been devolved to provincial and local authorities. Ultimately, the minister of finance has legal responsibility for financial stability, but the mandate has not been operationalized formally.

III. IMF ENGAGEMENT

A. Monetary Policy and the Monetary-Fiscal Policy Mix

14. The IMF strongly supported the authorities' monetary policy actions throughout the period. Nearly all press releases contained language explicitly "agreeing with" or "supporting" monetary policy decisions. The IMF characterized the BoC's inflation targeting framework as credible and time tested and agreed that the UMP toolkit that had been developed would be adequate should risks materialize.

15. In the aftermath of the GFC, the IMF focused on whether full QE and other unconventional monetary policies should be an option for Canada and concluded that UMP beyond the initial period of forward guidance was not needed, mainly because the transmission of monetary policy through the financial system continued to function well and the economy was proving resilient. At a later stage when interest rates had been close to the lower effective bound for a prolonged period, the IMF argued that additional monetary easing would not be very effective relative to more fiscal support as fiscal multipliers were higher closer to the lower bound. It also noted the risk that full-blown QE might create an asset price bubble.

16. The IMF's forecasts coincided closely with those of the BoC throughout the period under consideration. As confirmed by interviews of IMF staff and authorities, both the BoC and the IMF anticipated normalization of policies after 2010 and did not foresee the need for renewed monetary loosening. To its credit, the IMF did emphasize downside risks in detail, suggesting policy options—including use of the UMP in the BoC's toolkit—to deal with each of these risks. But the authorities felt that the lack of quantification and granularity of this risk analysis limited its usefulness in helping them question the validity of their baseline monetary policy settings. The IMF did not weigh in on the design of the BoC's UMP toolkit in 2009. The IMF provided some "preliminary considerations" on international experience with UMP and implementation in Canada in the 2016 staff report but did not follow up with more definitive analysis or policy suggestions.

17. The IMF's advice on monetary policy in the immediate aftermath of the global financial crisis initially differed from that given to other AEs, primarily because Canada's economic outlook was more favorable and its financial system resilient, though its advice on fiscal policy was identical, despite Canada's different circumstances. The IMF did not call for full-blown UMP and supported early withdrawal of fiscal policy stimulus. However, at a later stage, the advice of "keeping rates lower for longer" converged with that of other AEs as all were struggling with stubbornly low inflation, even though Canadian asset prices and household indebtedness kept marking historical highs.

18. Regarding the mix between monetary and fiscal policies, following its call for Canada to participate in the global fiscal stimulus, the IMF went along with the authorities' return to fiscal consolidation in 2010, though emphasizing the need to be very gradual. When monetary policy faced the prospect of prolonged low rates during 2014–17, the IMF advocated more reliance on fiscal support for the economy relative to the authorities, though without quantification (referring also to financial stability risks associated with low interest rates). The IMF also saw a need to leave some room for monetary policy (including UMP if needed) to respond to downside risks.

B. Financial Stability and Monetary Policy

19. The IMF strongly supported the authorities' approach to financial stability. It agreed with the authorities that monetary policy was not the tool to deal with financial stability issues and that macroprudential tightening was the correct approach to rein in frothy real estate markets and rising household indebtedness. As discussed in the background papers by Turner (2019) and Rebucci and Zhou (2019), the IMF moved to a "corporate view" that monetary policy should focus on macro (output and price) stability and macroprudential policy on financial stability, a view clearly spelled out in the 2016 Article IV report for Canada. Nonetheless, while the IMF maintained that monetary policy should not be used to "lean against the wind" or address high household debt, it called for gradualism in monetary tightening in 2016–17 to avert widespread debt servicing difficulties for households. It also acknowledged that the flexible inflation-targeting framework allowed the BoC to consider financial stability considerations.

20. The IMF supported the tightening of financial policies aimed at mitigating the rise in real estate prices and household debt. From 2010 onward, every staff appraisal in Article IV reports approved of the macroprudential measures taken by the authorities while cautioning that more tightening could be needed if financial imbalances widened further. The IMF advocated gradualism in the tightening of macroprudential policy, making continuous adjustments as needed, and using several measures simultaneously. It also provided a cross-country perspective on the likely effectiveness of various macroprudential measures, for example in the 2012 consultation, where the IMF suggested that raising loan-to-value ratios in combination with tightening risk weights and scaling back insurance would be effective in the Canadian context, and again in 2014, where the Article IV report compared performance of single and combined measures across countries. The IMF argued that the "macroprudential measures introduced in Canada had been effective in moderating the pace of household debt accumulation and cooling off the housing market" (2013 Article IV) and "macroprudential policy has been broadly effective in alleviating financial stability risks" (2016 Article IV). The IMF did not explore other policies, such as tax policies, to deal with frothy real estate markets.⁴

⁴ It also did not raise concerns about the effectiveness of anti-money laundering measures to ensure that capital inflows going into real estate were legitimate.

21. One area where there was a difference in views was about the response to regional differences in housing price pressures. With overvaluation of housing seemingly limited to certain regional markets, the IMF advocated regional macroprudential measures, which were rejected by the authorities. At the same time, the IMF judged regional turnover tax measures on foreign investors to be capital flow management measures in its 2017 Article IV report and suggested alternative measures “to curb real estate speculation” that would not discriminate between residents and non-residents (IMF, 2008–17). The authorities, while generally supporting the IMF’s Institutional View on Capital Flow policies, disagreed with the staff’s emphasis on the capital flow implications of their policies, pointing out that capital flows were not the target of the policy measures undertaken.

C. Policy Frameworks

22. The IMF supported the overall outcome of the reviews of Canada’s inflation target framework. It agreed that the existing framework had served the authorities well and that the benefits from shifting to a new framework, in particular of price level targeting, were uncertain. The IMF’s interpretation that “Canadian inflation dynamics ... had been consistent with the perception that the monetary policy rule has an element of PLPT” and its conclusion that “a move to PLPT would likely be treated ... as an evolutionary step” were strongly rejected by the authorities, in particular at the Executive Board discussion of the 2010 Article IV. The authorities felt that the perception had been created by chance rather than design and that a move to price-level-path targeting (PLPT) would require addressing many substantive issues (e.g., choice of target) rather than just being an evolutionary step.

23. Outside the context of the reviews, the IMF argued for adjustments to Canada’s monetary policy framework in terms of transparency and communication. However, the authorities did not implement the IMF’s recommendations to increase transparency by publishing the policy rate path, the underlying forecast, and alternatives. In line with these recommendations, the IMF had argued for introducing systematic forward guidance rather than the ad hoc approach implemented by the BoC in the aftermath of the crisis.

24. The IMF persistently called for a formal institutional framework to deal with system-wide financial stability, a long-standing Financial Sector Assessment Program (FSAP) recommendation (IMF, 2008b; 2014).⁵ It argued that the ad hoc approach to coordinating policies among various agencies to deal with financial stability risks could lead to suboptimal policies or policy failures. While some agencies, academics, and market participants supported this view, the Canadian authorities have argued that, given the high level of trust that exists among the various agencies, the present system is not broken and does not need to be fixed.

⁵ Provide a clear mandate to an entity (i) to monitor systemic risk to facilitate macroprudential oversight, and (ii) to carry out system-wide crisis preparedness.

D. Resource Use

25. According to staff interviews, IMF resources allocated to monetary policy analysis and advice on Canada were constrained. On monetary policy, much of the analysis was done by staff on the country team, consisting of about two economists, supported by colleagues working on the U.S. team, housed in the same division. With problems besetting the U.S. and other advanced economies much more severe than those facing Canada, and increasing emphasis on multilateral messages by the IMF, mission chiefs reported that resources for the Canada country team were under pressure during the review period. Colleagues from other departments were called on to assist on an informal basis. Mission chief turnover was relatively high, with six different mission chiefs for nine Article IV consultations since 2008.

26. The IMF devoted considerable resources to financial stability issues. With Canada on a five-year FSAP cycle, the IMF undertook two comprehensive assessments of the resilience of the financial system and the quality and institutional setup of supervision and regulation. These FSAPs informed the annual Article IV consultations and allowed ongoing inputs from staff who had been involved in these assessments. Staff interviews revealed that the IMF also benefited from insights from staff who happened to have worked in Canada on financial sector issues.⁶

IV. ASSESSMENT

A. Quality and Timeliness of Advice

27. At a high level, the authorities and other observers agreed that the quality of the IMF's advice on monetary policy, the policy mix, and macroprudential policies was generally fine, grounded in the IMF's experience and based on thoughtful analysis. The authorities noted that supported by two FSAPs, the IMF's analysis of financial issues was deeper and more operational than that underpinning its advice on monetary policy.

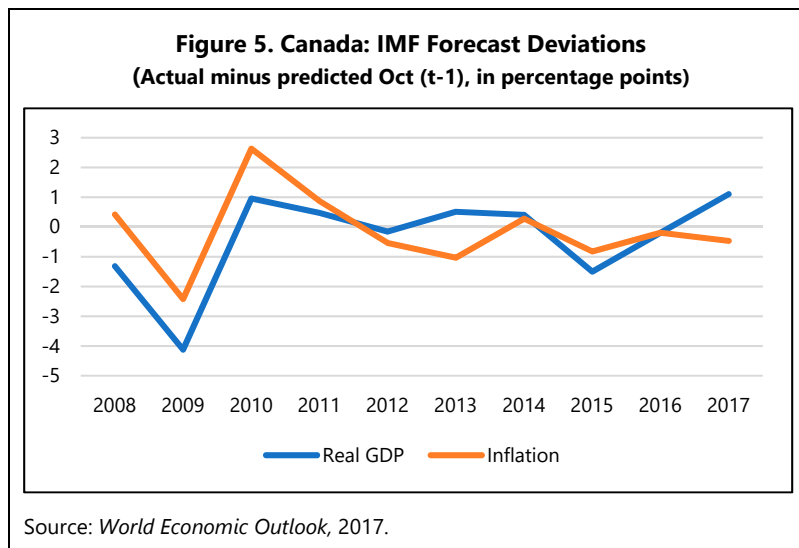
28. Officials noted that the IMF's assessment of the need for UMP in the Canadian context was comprehensive, but mostly qualitative and not very deep. For instance, the IMF did not make its own assessment of the effective lower bound for the policy rate but relied on the BoC's analysis and agreed with its evolving views. Similarly, in discussing potential use of UMP, the IMF did not provide an in-depth assessment of the effectiveness of various options of UMP, nor of the risks possibly associated with prolonged episodes of low policy rates.⁷

⁶ In 2017, the IMF conducted an AML/CFT assessment, an area where enforcement was found to be wanting.

⁷ Staff reports during this period generally indicated room for conventional easing and suggested that various UMP tools should be deployed in cases downside risks materialized. Staff expressed concern about excessive risk taking by banks and challenges for pension and insurance companies from low interest rates. But the reports do not assess the relative effectiveness, transmission channels, and risks of various UMP tools, deferring to the BoC on this as evinced by the following quote from the 2016 report: "In the event unconventional monetary policy

29. Some observers questioned the IMF advice on the mix between monetary and fiscal policies and the need for fiscal support. With Canada’s financial system doing well, the combined monetary-fiscal stimulus provided at the onset of the crisis—which was supported by the IMF—may well have been excessive. As indicated by former officials and members of a think tank, this appears to have played a role in tilting the political balance in favor of those arguing for a return to consolidation, which then actually led to too early a withdrawal of fiscal stimulus. The whipsawing of fiscal policies contributed to volatility and shifted the burden of stabilization fully onto monetary policy.

30. With the benefit of hindsight, both the IMF and the BoC missed turning points and the secular decline in the neutral interest rate (Figure 5).⁸ Thus, the desired outcomes, especially with respect to inflation, took longer than expected to materialize. Forecasts typically assumed a fairly quick reversion to trend, with inflation projected to return to target within the policy horizon, shocks to the economy dissipating in response to policies, and vulnerabilities from house price overvaluation and household indebtedness gradually fading. However, house price increases and household indebtedness proved difficult to address, and measures repeatedly turned out to fall short of their expected impacts.



31. With the IMF and the BoC sharing strongly held in-house views that monetary policy should deal with the macroeconomic cycle while macroprudential policies should be used to safeguard financial stability, there was little exploration of using monetary policy to “lean against

measures are put to use, the BoC should communicate clearly its diagnosis of the problem and the merits as well as the transmission channels of the measures it plans to pursue.”

⁸ There appears to have been a slight upward bias in growth forecasts by the Bank of Canada (see Binette and Tchebotarev, 2017).

the wind.” This was the case even though the IMF staff team’s own analytical work had shown some evidence that the effectiveness of macroprudential measures would be reinforced by a rise in interest rates (IMF, 2012).⁹

32. Some observers suggested that the IMF could have done more to explore alternative policy combinations to see whether they could have improved outcomes. The IMF knew from experience and from its analytical work that recessions associated with financial crises tended to be unusually severe and their recoveries typically slow (IMF, 2009a) and that asset price booms supported by very accommodative monetary policies were hard to rein in. A policy mix of somewhat tighter monetary policy and more supportive fiscal policy for a given macroprudential stance could have dampened the rise in household indebtedness and lessened the reliance on private consumption and the wealth effects to deliver growth. Academics noted that in this setting, monetary and macroprudential policy would have worked better together, with the symbolic value of a (modest) tightening of monetary policy possibly nipping in the bud expectations of forever-rising asset prices. Alternatively, in the absence of moving to a less accommodative monetary stance, a tighter macroprudential stance could have been explored.

33. The authorities felt that the IMF could have provided greater specificity around its macroprudential policy recommendations with stronger analytical support. The IMF’s quantitative analysis of housing issues and the effectiveness of various macroprudential policies implemented in Canada was seen to be quite rudimentary, with an econometric approach relying primarily on dummy variables to tease out the effects of the various policy measures. In fairness, staff faced significant data challenges that hindered more sophisticated analysis. Nonetheless, against this background the IMF could have been more circumspect about the effectiveness of such tools, as it was in its more general papers on the subject (see Crowe and others, 2011; and Dell’Ariccia and others, 2012). While the authorities’ welcomed the IMF’s support of their actions, the lack of clarity about which tool to use, how much to use it, and when to add another tool reduced the value of the IMF’s advice.

34. The IMF’s advice on the monetary policy framework did not gain much traction. While the BoC appreciated the IMF’s model-based simulations of alternative monetary policy frameworks and suggestions about the need to improve transparency and communication, the reluctance of the BoC to take on board these recommendations is not surprising, given that inflation expectations rarely strayed outside the inflation target band over the medium term. The IMF did not weigh in much on the question of whether and how monetary policy should consider financial stability when the authorities initially were tackling this issue as part of their 2011 review.

⁹ Some other observers also saw macroprudential tightening as more effective in an environment of rising policy rates.

B. Value Added and Influence

35. The IMF was seen by the authorities to add significant value added in a number of areas:

- The IMF's analysis of financial vulnerabilities and their interaction with macroeconomic shocks raised awareness and helped gain support for measures to tackle potential financial imbalances.
- The IMF brought an international perspective. Views on the U.S. and Chinese economies, spillovers, emerging markets, and global commodity price developments were useful inputs to the authorities' decision-making.
- Likewise, the IMF's cross-country analysis of the experience with macroprudential tools was informative and its call for a robust institutional setting to deal with system-wide risk well received.

36. The authorities appreciated the IMF's validation of their policy positions and actions. Given the IMF's credibility and reputation for impartial and carefully considered economic policy advice, and the importance of a robust Article IV process for the membership, this validation in the context of robust Article IV consultation discussions was seen as providing worthwhile support.

37. On the other hand, authorities and observers agreed that the IMF did not materially challenge or influence the monetary and macroprudential policy actions of the authorities. Occasional differences, such as on the mix between monetary and fiscal policy paths or the pace of tightening of macroeconomic policies, were cast in very cautious terms. In the absence of quantification, the differences were not visible to the Canadian private sector and academic observers we interviewed, some of whom saw this as a lack of candor by the IMF. The IMF was not seen to bring new perspectives or innovation to the discussions. Country counterparts were sophisticated in the area of forecasting and monetary policy, and resources available to the authorities far outstripped anything that the IMF could bring to bear.

38. In broad terms, IMF advice was most influential when it pushed further in a direction in which the authorities were already moving, but interviews of staff and authorities confirmed that traction was limited when the IMF took a different approach from officials (e.g., on regional macroprudential policies or the institutional macroprudential policy framework). Among the reasons advanced for this outcome were that interaction with the IMF was periodic—the IMF typically arrives when policy positions are already established, leaving little room for authorities to adjust policies; that its advice is too high level and lacking operational detail and innovation; that there were no significant differences of view or controversial calls to make during the period under review; and, that at times the political situation was unfavorable or too delicate (e.g., federal-provincial relations) for implementing IMF recommendations.

C. Process

39. While IMF's internal processes were adequate to deliver a satisfactory quality of advice on monetary policy, the engagement with authorities was not sufficiently close to provide high levels of effectiveness and influence. Staff resources were sufficient for good quality high-level discussions, but insufficient for deep analysis or operational engagement on both monetary and macroprudential issues. Interviews with staff indicated that with policies delivering reasonable outcomes, it had been difficult to justify devoting more resources to Canada. The authorities felt that the relatively high turnover of mission chiefs impaired the quality of the IMF's advice and its ability to take into account country specifics.¹⁰ They reported that too much time had to be devoted year after year in explaining to new mission chief or team members the details of several key aspects of the Canadian economy, especially in the financial sector. As a result, IMF advice was less impactful than if it had fully reflected Canada's particular circumstances. Moreover, the formal and long-drawn out nature of the Article IV process and limited interactions outside the annual consultation ran counter to timely engagement on emerging policy issues. In this context, the Canadian authorities noted that they did not seek out the IMF's advice ahead of major policy decisions, in part because of the absence of an informal and confidential process to do so.

V. LESSONS

40. The IMF should focus on its comparative advantage to enhance its value added. In the case of advanced economies like Canada, this advantage lies in issues beyond the analysis of Canada's cyclical position and real-time monetary and macroprudential policymaking. With limited resources compared to the staffing of the BoC and other Canadian institutions dealing with financial issues, observers we interviewed saw the IMF as better placed to provide inputs on relevant global developments and draw from its international experience to advise on policy options and their effectiveness, and on the soundness of policy frameworks, including a more integrated perspective across different aspects of macroeconomic policies. The IMF should ensure that its global experience percolates into its bilateral advice, without however constraining the scope for staff country teams to take account of local conditions.

41. The IMF should fully take account of country preferences and circumstances to maximize its impact. The authorities indicated that they would have appreciated more use of model-based approaches and greater quantification of the likely effects of adopting the IMF's recommendations. Ex-officials and some market participants concurred that the effectiveness of the IMF could also be enhanced by providing analysis additional to that of the authorities and paying more attention to the political economy of its recommendations (e.g., federal/provincial issues).

¹⁰ Canada had six different mission chiefs from 2008–2018. A total of 33 economists (20 from area department and 13 from functional departments) participated in missions between 2008 and 2017, of which only 8 economists participated in more than 1 Article IV missions.

42. Modes of engagement could be adjusted to enhance effectiveness. The tenure of mission chiefs needs to be of sufficient length to develop good relationships with officials based on trust and understanding in the interaction with authorities. At the same time, engagement that is more continuous and less formal than that implied by the Article IV process would be helpful to the authorities, especially in turbulent times. And observers interviewed noted that involvement of IMF management to deliver important messages would boost influence.

43. Some fine-tuning of internal processes would boost the likelihood of providing the best possible advice. The IMF needs to ensure that the lessons of its own analysis are embedded in its country advice, e.g., in the case of the likely effectiveness of macroprudential policies. It also needs to be careful about the tendency to assume reversion to trend and normalization of conditions in the aftermath of what it knows to have been large financial shocks. Finally, it should be vigilant about avoiding group think and adopting overly dogmatic positions, particularly in areas where there is no broad consensus such as the appropriate mix of monetary, macroprudential, and fiscal policies to deal with financial stability risks.

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Chapter 2—Denmark, Switzerland, the Czech Republic, and Sweden

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I. INTRODUCTION

1. Monetary authorities in smaller European advanced economies outside the euro area have had to respond to a range of unforeseen and unprecedented circumstances during the past decade. This paper assesses IMF monetary policy advice to four of these countries: Denmark, Switzerland, the Czech Republic, and Sweden.¹
2. The vigorous and, in some respects, unconventional monetary policy (UMP) measures adopted in these countries reflected distinct external pressures:
 - The flight to safety during 2008–09 in the aftermath of the Lehman bankruptcy. This affected all four countries, with stronger initial effects on Denmark.
 - The ultra-low interest rate environment established in the major economies by 2009.
 - The euro area redenomination crisis of 2011–12—which had a dramatic effect on capital inflows into Denmark and Switzerland, triggering negative policy interest rates in both and the introduction of the latter’s exchange rate floor policy in September 2011. Already inhibited in its attempt to avoid deflation by the approach of the effective lower bound to nominal policy rates, the Czech Republic followed the lead of Switzerland and resorted to an exchange rate floor.
 - The expanded asset purchase program (QE) of the ECB in early 2015—the impending introduction of this program triggered the somewhat disruptive exit of Switzerland from its exchange rate floor.
3. Each of the countries started from a somewhat different initial position in terms of the monetary policy and financial system environment, and each was affected in somewhat different ways by these shocks. Denmark uniquely began with a fixed exchange rate peg regime which it maintained throughout; Switzerland and the Czech Republic operated floating exchange rate regimes with an inflation target initially, but both introduced an exchange rate floor (maximum value) for a time; and Sweden kept to a floating exchange rate.
4. An assessment of IMF advice to these countries is relevant for many reasons. First, the contrasting circumstances called for policy assessments that accounted for important country specificities. Cookie-cutter approaches would not have sufficed. While national policy expertise in each of these countries is strong, timely advice from an organization such as the IMF that could

¹ A number of European countries (most acutely Iceland, but including Latvia, Denmark, and Switzerland) faced severe shocks to the viability of all or part of their banking systems) during this period and their policy responses were colored by the need to address banking sector dislocation. However, this chapter is focused on monetary policy and will largely abstract from banking policy, even though the policy measures designed to preserve the liquidity of the banking system clearly interacted with the remainder of monetary policy.

draw on a broader pool of international experience had the potential to add considerable value, particularly when seemingly novel steps like negative interest rates were being contemplated.

5. Second, the IMF needed to ensure that policies paid due regard to countries' obligations of IMF membership and to their global impact. Thus, for example, the use of the exchange rate floors should be not motivated by a desire to gain competitive advantage in conflict with the IMF's Articles of Agreement.

6. Third, these countries, particularly Sweden, provide important case studies for IMF staff advice on the role of monetary policy in dealing with financial stability risks. Asset price booms, particularly house prices, were prevalent in many of these countries. Sweden for a time allowed its monetary policy to be more influenced by domestic macroprudential considerations relative to macroeconomic goals than was the case in other countries.

7. Specifically, the paper addresses the following questions about IMF advice to these countries:

- First, the relation of the Fund with each of the countries: Did the Fund give helpful advice to the countries? Did the Fund have influence?
- Second, the formulation of Fund advice: Were Fund staff able to draw on a pre-existing body of doctrine on related matters? How influential was inter-departmental debate? To what extent did cross-country considerations influence Fund recommendations? Was Fund public and private advice appropriately independent of national government preferences? Was the scope of the advice sufficiently broad?

8. The answers to these questions are based on a review of Article IV reports and other relevant internal and external documents, as well as interviews with current and former officials at central banks and key IMF staff in charge of the work on these countries. The paper also draws on views expressed by several external observers—academics, experts at think tanks, financial market participants, and others familiar with IMF monetary policy surveillance of these countries.

9. Section II highlights the main monetary policy innovations in each of the four countries, explaining the thinking behind each major change and identifying highlights of the Fund's engagement with these issues. Denmark is reviewed first because of its pioneering experiment with negative interest rate policy. Switzerland and the Czech Republic also introduced innovative policy measures via exchange rate floors during the onset of the European sovereign debt crisis, albeit with rather different outcomes, and are analyzed next. Sweden, the last to adopt unconventional measures, is reviewed last. Section III assesses the role of the Fund. Section IV concludes.

II. COUNTRY EXPERIENCES

A. Denmark

Key monetary policy developments

10. Danish monetary policy during the crisis period (encompassing the GFC and the subsequent euro area crisis) was entirely driven by the determination of the central bank (Danmarks Nationalbank, DN) to maintain the tight peg of the Danish krone (DKK) vis-à-vis the euro. As a consequence, Denmark raised interest rate spreads against the euro in the early stages of the crisis, but later swung sharply around and in 2012 became the first country to adopt negative policy rates. A determination to prioritize the peg was shared throughout by all political parties. There was a broad understanding within Denmark that this commitment was not to be compromised by such considerations as the side-effects on aggregate demand or other aspects of the real economy.²

11. As understood by the Danish authorities, the peg is supported by three lines of defense. First is the overall credibility and clarity of the regime, which induces self-stabilization through the profitable responses of the local banks and other financial intermediaries. (They can absorb fluctuations in the net supply of foreign exchange without such fluctuations resulting in wide changes in the exchange rate). The second line of defense is use of foreign exchange reserves. The market understands that reserves will be depleted or accumulated to absorb flows up to some—not precisely specified—amount. The third line of defense is the use of interest rate policy.

12. During the crisis, the interest rate tool was used aggressively on at least three notable occasions. It is important to recall that the first of these occasions, in September 2008, reflected speculation against the DKK, with outflows occurring as part of the general flight to safety occurring worldwide in those weeks. As the flows continued, speculative interest in the possibility of abandonment of the peg increased, with hedge funds positioning themselves to take advantage of a depreciation, thereby increasing its possibility.

13. A widening of the spread against ECB interest rates was effective in stemming the outflows, allowing the spread to be progressively reduced, although it returned to its traditional level only in 2010. Although this was clearly a pro-cyclical exercise of monetary policy at a time of economic weakness, there was no political push-back against it.

14. The 2008 financial market turbulence also risked affecting Danish government access to foreign borrowing. The authorities responded with some innovative policies. The government

² The strong national adherence to the DKK peg, even in the face of the procyclical monetary policy responses that a peg will from time to time imply, can be traced to the severe macroeconomic and fiscal crisis of the early 1980s, which led to a decisive change in direction of overall macroeconomic policy.

sourced funds from the Danish pension funds by issuing them with a 30-year 4½ percent bond. Swap arrangements were negotiated with the U.S. Federal Reserve and later with the European Central Bank (ECB), which helped keep unhedged Danish holdings of U.S. dollar assets from having to be liquidated.

15. While the monetary policy actions of 2008 were quite traditional when seen from the perspective of peg defenses in the 1970s and 1980s, the next wave of unusual monetary policy presented the new feature of negative policy interest rates. Market pressure in this second wave was in the opposite direction. It took place in 2011/12 when market fears about the sustainability of the euro area induced flows into DKK-denominated assets. Even a moderate amount of speculation in this direction (relative to the scale of the euro area) implied very large flows relative to the size of the Danish financial system.

16. In line with its standard reaction function, the DN lowered the spread against the euro area and eventually moved to a negative spread. The DN had decided that zero need not be an effective lower bound on the policy rate and communicated to the banks the possibility that official rates might move into negative territory, alerting them to the need to make any necessary technical preparations. When the ECB deposit rate was lowered to zero in July 2012, the DN followed by lowering official rates (notably its repo rate) below zero, to -0.2 percent. This was the first time in history any central bank had posted negative policy interest rates.

17. Since banks typically offer deposit rates that are below short-term money market rates, the contribution to their profits from this spread was going to be eliminated unless they were prepared to move deposit rates below zero. Banks eventually did quote negative deposit rates for corporate customers but did not do so for retail customers. The DN temporarily expanded the allowed quota for each bank's access to the DN's current account facility, which continued to pay zero (and not a negative rate). This effectively increased the average interest earned by banks on surplus funds while keeping the marginal cost of funds below zero. Once again, the interest rate measure was effective in stemming and reversing the flows, and the average spread for banks was brought back up to positive territory in 2014.

18. The third significant event during the crisis years was the removal by the Swiss authorities in early 2015 of the ceiling on the euro value of the CHF (as the ECB prepared to extend its asset purchase program to public sector securities and to greatly increase its volume). The sharp appreciation of the CHF that followed resulted in renewed speculative pressure on the DKK. This time the pressure was not because of any fear of euro break-up but was attributable to market beliefs that there might be some copy-cat effect in Denmark from the Swiss decision. Once more the DN moved promptly to lower its main (repo) policy rate, this time to -0.75 percent. The inflows continued, however, and the DN decided to announce a more aggressive and open-ended intervention policy. Combined with an announcement by the government that it would cease issuing bonds, this had the desired effect of stemming the flows and causing their reversal. (This announcement on government borrowing had been suggested by DN and was credible given that the government was strongly pre-funded). Since then, DN has

increased the repo rate slightly to -0.65 percent; the spread against the ECB's deposit rate is still negative but less than before as the ECB lowered its deposit rate to -0.40 in early 2016.

Consultations with the IMF

19. Danish authorities and other observers consulted for this study reported that the IMF's engagement with the nuts and bolts of Danish monetary policies during this period was limited. The authorities sensed that Fund staff were tolerant but unenthusiastic about the absolute priority given by the national authorities to the peg.

20. In 2008–09, IMF staff worried that the commitment to the peg would make achievement of macroeconomic stabilization difficult. An October 2008 Back-to-Office report³ noted that "both central bank and government officials were more concerned about persistent inflation than about the impact of a global recession." By 2009, staff worries about the consequences of the tight monetary policy had grown. The Article IV 2009 Policy Note (PN)⁴ prepared in advance of the consultation mission noted that "policy rate cuts, supportive money and credit market operations by the central bank, full use of strong fiscal automatic stabilizers...are all necessary to combat the slide in domestic demand and to manage expectations in a potentially deflationary environment." Little attention appears to have been given to the innovative, but potentially controversial, monetary policy-related maneuvers of the DN, such as mobilizing the FX holdings of pension funds.

21. By 2011–12, bank exposures to Danish household debt and to the euro area were the staff's focus of concern. The PNs did not emphasize monetary policy issues and were matter-of-fact about the spread with the ECB having turned negative and about one of the DN's policy rates having been pushed below zero. In the 2012 Article IV PN, prepared at a time when there were only a few weeks of experience, staff remarked that "the negative interest rate policy is new and little experience has been accumulated, so any policy recommendation would be tentative. A note on this topic is planned for the SIP."⁵ Still the 2012 Article IV Report devotes less than half a page to monetary policy in this environment. Curiously also, the Nordic Regional Report, prepared by the European Department (EUR) staff and published in 2013, devotes almost no attention to monetary policy issues (IMF, 2013b).

22. Not until 2014 did the Article IV report attempt a broader assessment of UMP-related issues in Denmark, providing a good retrospective overview of Denmark's experience since the

³ A Back-to-Office report is a report that is written after a mission or conference for internal references.

⁴ A Policy Note is the internal Fund document prepared before a mission by area department staff and approved by management following review by other departments.

⁵ Batini and others (2013) explored briefly some of the technical aspects of NIR (e.g., money transmission; liquidity of secured versus unsecured markets; failures in settlement because of weaker incentives to return the securities repossessed; etc.).

onset of the crisis. Within months, Denmark's UMP strategy was challenged again by the Swiss floor exit (see below). There is no evidence of the Fund discussing contingency planning for Denmark's monetary policy in response to a potential Swiss exit. (The government debt management announcement was, for example, entirely homegrown.) But at least now the matter of UMP was higher on the Fund's agenda for Denmark, and policy issues and experience were covered in some detail in the staff visit of 2015.

23. By 2017, Denmark's large current account surplus was causing concern, but the solution was seen as lying mainly in the fiscal and not the monetary sphere. The staff's stance on Denmark's monetary policy is encapsulated in the repeated phrase that the authorities should "remain ready to defend the peg and continue to normalize rates as conditions allow."

B. Switzerland

Key monetary policy developments

24. The case of Switzerland is perhaps the most interesting and the most controversial, not least because of Switzerland's role as a financial center and the perception of the Swiss franc (CHF) as a safe-haven currency. Although following a monetary policy regime aimed at price stability with a generally flexible exchange rate policy, the Swiss authorities have, from time to time, employed vigorous exchange market intervention to moderate exchange rate movements driven by safe haven capital flows.

25. During the second half of 2008 and again from late 2009, waves of inward capital flows (including return flows by Swiss corporate and individual residents) pushed the euro value of the CHF progressively higher,⁶ despite countervailing action by the Swiss National Bank (SNB) including a sharp initial reduction in policy interest rates, outright purchases of domestic bonds, and currency intervention.⁷

26. These measures did not achieve sustained success and intervention was suspended in May 2010, at which point the SNB's balance sheet had about doubled in size relative to the onset of the crisis. Appreciation accelerated from April 2011 as the euro area crisis deepened and the value of the CHF surged almost to parity with the euro in August.

⁶ Further intervention in the domestic bond market was not considered attractive because of the small size of this market and because of political sensitivities that might come into play.

⁷ In the weeks after Lehman's bankruptcy, the CHF/euro rate jumped from 1.6 to well below 1.5 and remained volatile until March when it stabilized at around 1.52. From December 2009 there was a further strengthening (attributed to new language used by the new SNB leadership), which was gradual until early May 2010 when the Greek crisis led to considerable volatility and overall strengthening.

27. At this point, the SNB decided on a dramatic change of regime, announcing a “floor” of 1.20 to CHF/euro rate and committing to unlimited interventions to defend this floor. Introduction of a floor reflected the view that an appreciation beyond 1.20 CHF/euro would be clearly deflationary.⁸ The floor remained in effect for more than three years and ensured that the further deepening of the euro crisis in 2012 had no impact on the euro value of the CHF. While the floor was in effect, each episode of political or financial market uncertainty in neighboring countries was marked by capital inflows and SNB reserves ratcheted up.

28. Although much of 2014 passed quietly enough, a reliably smooth transition to more normal conditions seemed out of reach. The SNB did develop contingency planning around an exit plan. Two scenarios were envisaged: either the CHF would have weakened sufficiently to allow the floor to be removed uncontroversially (this could clearly not be done if the rate was still close to 1.2 CHF/euro); or the exit might be forced by irresistible market pressure (as indeed subsequently happened). Alternative policies were considered, including capital controls—which were ruled out on the grounds that they would be too easy to evade—and negative policy interest rates.

29. Towards the end of 2014, with the ECB seen as increasingly likely to expand its quantitative easing (QE) program, reserves rose particularly sharply, triggering an SNB decision to lower its policy rate into negative territory in December 2014. In the middle of the following month, without warning, the SNB suddenly announced the immediate abandonment of the floor. SNB staff noted that the weakening of the euro against most major currencies meant that a rate of CHF 1.2 with the euro was no longer sustainable and would become even less so given the rate of QE purchases.⁹

30. However, with inflation drifting below zero (it reached –0.9 percent year-on-year in March 2015), the monetary policy stance was eased further with the policy rate lowered to –0.75 percent, and there was continued opportunistic intervention to dampen appreciation. Net accumulation of reserves continued over the following three years, adding about 50 percent (or CHF 250 billion) to the total.

31. The negative policy interest rate raised concerns at the SNB about potentially serious side-effects. One potential effect was on the net income of banks. Banks passed on the negative interest rates to wholesale (rather than retail) depositors. (There was a small increase in mortgage

⁸ Export competitiveness was also relevant, but in SNB thinking the inflation rate was a sufficient statistic covering export competitiveness also. The term “floor” reflects the convention according to which the exchange rate is quoted in CHF-per-euro; thus imposing a floor means places a maximum value on the CHF.

⁹ With the domestic private sector repatriating euro-denominated assets in the expectation that they could fall in value, the SNB was, by intervening, assuming this risk from the private sector. To continue intervening in such circumstances would be to lose more credibility and more money when the floor was eventually abandoned.

rates, suggesting cross-subsidization, but this was temporary.)¹⁰ The SNB sought to contain the effect on bank profitability by employing a two-tier policy rate. Only marginal reserves incurred the negative interest rate: the first tier (zero interest) was linked to reserve requirements.¹¹ In this way only new inflows were being deterred. The SNB discouraged banks from offering banknote storage facilities, pointing out the many risks (security, fraud) that could be entailed. The fear that negative interest rates would provoke massive switching of liquid assets into cash (currency notes) proved to be largely unfounded.¹²

32. Complicating factors for the Swiss authorities included the impact of the large balance sheet and of currency movements on the profits of the SNB itself. A heavy annual loss was recorded by the SNB in 2010 as CHF appreciation implied large marked-to-market losses on the FX portfolio. With many cantonal governments dependent on their share of SNB profit flows, this created a degree of political pressure. (Subsequently, the Federal Department of Finance and the SNB agreed a change in the distribution of the SNB's profit to smooth the flows to the federal and cantonal governments.)

33. There was much market criticism of the manner in which removal of the floor was announced in mid-January 2015. Lacking at first a clear explanation of the future policy and faced with large stop-loss orders at just below the floor level, market forces drove a dramatic overshoot of the exchange rate in the first hours, before it found a new and much more appreciated value than the floor had implied. For the following two years, the CHF remained strong, in particular against the euro, despite sizable waves of intervention by the SNB. It was only in mid-2017 that the currency began to weaken without the need of SNB intervention. Indeed, by April 2018 the currency was back at the former floor level against the euro (though it has subsequently strengthened).

Consultations with the IMF

34. SNB staff stated that they always appreciated the dialogue on monetary policy with the experienced and high-quality IMF staff, and on occasion had reached out for specific advice. Questions from IMF staff forced them to think through their policy approaches more systematically and added to the challenge from domestic media and the academic community. Nevertheless, in the end their policy choices were based on their own technical analysis and not the result of IMF analysis or pressure.

¹⁰ Banks may have felt free to exploit market power in the new circumstances given the losses they were incurring on excess reserves.

¹¹ The distributional effects between different classes of banks needed to be addressed here inasmuch as small private banks structurally held large excess reserves. The legal basis for the two-tier approach also needed careful consideration.

¹² The amount of CHF 1000 notes in circulation increased in 2008, 2012, and 2015, but not dramatically.

35. Before the floor was introduced in September 2011, Fund staff views on Swiss monetary policy were focused on the possible adverse side effects of the accommodative policy that had been introduced in 2008–09. Exit from these early measures was encouraged and—likely reflecting concerns that the authorities might be tempted to depreciate the exchange rate further to gain a competitiveness advantage—the staff thought that currency intervention “if any, should be limited to cases of disruptive market conditions.” By the following year, the danger that low interest rates would result in a build-up of mortgage market risks led Fund staff to advocate the introduction of macroprudential tools such as affordability limits and loan-to-value ratios.

36. The sharp run-up in the CHF/euro exchange rate during the summer of 2011 created a policy challenge that the earlier discussions had not foreshadowed. At this point the SNB reached out to the IMF seeking advice on a range of possible policy measures that SNB staff had been considering, including capital controls and negative interest rates as well as the exchange rate floor option.¹³ But the discussions were hypothetical, and IMF staff were not given advance notice of the introduction of the exchange rate floor (nor is this required by the Fund’s Articles of Agreement or other rules).

37. When the exchange rate floor was announced on September 6, 2011, the EUR country team immediately analyzed the new policy (as evidenced in the unpublished briefing note to management for the annual meetings). Although there was a natural sensitivity to a policy aimed at depreciating a currency in a country with a persistent and large current account surplus, staff judged it to be appropriate in light of the acute competitiveness pressures that the sharp appreciation had caused to Swiss exporters and noting the favorable international spillovers to some neighboring countries where borrowers with CHF-denominated mortgage loans had risked coming under pressure.

38. The IMF also agreed with the authorities that alternative measures, such as QE or capital controls, would not have been as effective in stemming the inflows. QE was limited by an insufficient volume of Swiss bonds available for purchase; making capital controls effective would have been difficult in such a sophisticated and large financial system (besides, much of the inflow was repatriation of assets by Swiss residents).¹⁴ Expansionary fiscal policy could have helped, but was not envisaged by the authorities given Swiss fiscal rules, and these were treated by IMF staff as a constraint that could not be overcome.

39. In general, the Fund country team working on Switzerland had to do its own analysis from scratch, given the lack of any agreed documents in the Fund offering policy guidance for

¹³ SNB also exchanged views with others at this time, including visits with the Danish central bank with a view to learning about its experience with negative interest rates.

¹⁴ Negative interest rates were not considered at this time, but likely would not have been sufficient to stem the rapid high-frequency appreciation.

such circumstances.¹⁵ Nevertheless, both at the outset and in subsequent years, Fund area department staff rapidly expanded their analysis of the effectiveness of these new instruments, and continued to ensure that the Fund was fully aware of special features of the Swiss economy, for example, the complexities of the Swiss balance of payments statistics. Other departments (notably the Monetary and Capital Markets Department (MCM), Research Department (RES), and SPR) also contributed to a lively internal debate on these issues.

40. A central focus for the Fund staff and other observers was an assessment of whether Switzerland's large current account surplus was a sign of an undervalued exchange rate. The current account surplus had been running at about 10 percent of GDP since the mid-1990s and was forecast to continue at around the same level over the next several years. This has prompted criticism of Switzerland's overall macroeconomic, fiscal, and monetary policy stance, notably by Bergsten and Gagnon (2012) and Gagnon (2014), who saw Switzerland as a "currency manipulator," using policy tools to weaken the CHF. In its semi-annual review of potentially unfair currency practices, the U.S. Treasury Department has since 2016 included Switzerland with five or six other countries in its monitoring list, advocating in its Spring 2018 review that "Switzerland should adjust macroeconomic policies to more forcefully support domestic economic activity." The large foreign currency purchases of the SNB during the period under review added plausibility to such a critique. However, the Swiss authorities have pointed to a number of distinctive features of the Swiss economy that tend to swell the current account surplus without increasing the true degree of external trading imbalance that could be attributed to an unduly weak currency. These factors include a large but retained net portfolio income from abroad; the extent of merchanting profits on activity occurring outside Switzerland; and the life-cycle of the pharmaceutical industry, where years of net investment are followed by years of positive profit flows (Saure, 2015).

41. While not conclusively proving the case, Fund staff have tended to give Switzerland the benefit of the doubt on this matter, judging the current account to be broadly in line with fundamentals. Their position was supported by the fact that the Fund's External Balance Assessment pointed to a current account surplus narrower than fundamentals and to currency overvaluation rather than the opposite.

42. That view was not universally shared, as evidenced for example by interventions from some EDs during the discussion of Article IV reports.¹⁶ However, noting that the Swiss current

¹⁵ A selected issues paper accompanying the 2012 Article IV Report interestingly recalled the experience of a previous floor exchange rate experiment by the Swiss authorities in 1978. That was not seen as having been a success, since inflation had surged to 7 percent the following year.

¹⁶ Some outside observers noted the contrast between the Fund view of Swiss FX intervention and the exchange rate floor with its implicit criticism of Korean exchange rate policy couched in what the Wall Street Journal (January 22, 2014) characterized as "unusually strong language" in its report of the 2013 Article IV review of that country (Talley, 2014). The perceived degree of actual or threatened currency misalignment at the time may help

account surplus has been relatively insensitive to large fluctuations in the effective exchange rate index, it is hard to quarrel with the Fund staff's interpretation that the FX intervention by the SNB and the currency floor were responses to speculative and safe-haven financial market flows rather than representing a step in the direction of currency weakening for the purpose of increasing the current account surplus.

43. During 2012 and 2013, staff continued to put forward useful monetary policy suggestions and careful country-specific assessments for Switzerland in its Article IV reports. For example, in the 2013 staff report provided reasoning why "an exit from the floor would be premature" and very clearly recommended a move to negative interest rates if safe-haven flows revived, referring to the Danish experience.

44. The removal of the exchange rate floor in early 2015 came as a surprise, as did the fact that the Fund had not been advised in advance (though there was no legal requirement to do so).¹⁷ Nor were Fund staff immediately taken into the SNB's confidence on the matter. Thus, in planning for the Article IV consultation in early 2015 the staff felt the need to "seek further clarification on the reasons for the ... SNB's surprise decision to abandon the exchange rate floor." In other words, they still did not know exactly why the SNB had taken this step (though they assumed that concerns about the size and leverage of the SNB's balance sheet and the recent appreciation of the U.S. dollar had played a role).

45. Departmental comments on the draft of the 2015 Policy Note before the Article IV consultation (especially from MCM, RES, and SPR) suggest the extent of the internal debate on what position the Fund should take. Then and later, staff regarded the new Swiss policy—with its considerable but fluctuating recourse to FX intervention—as lacking a clear and carefully articulated policy framework. Specifically, perhaps influenced by the pre-announcement of regular QE purchases by the ECB, staff recommended a pre-announced schedule of FX intervention by the SNB instead of the unpredictable interventions that were now happening again on a large scale.¹⁸

explain this contrast, as may the fact that (unlike Switzerland) Korea had not exhausted the room for downward policy interest rate adjustments.

¹⁷ "This was a bit of a surprise," IMF Managing Director Christine Lagarde said on CNBC. "[SNB Chairman Thomas] Jordan did not contact me; I find it a bit surprising that he did not contact me" (Rosenfeld and Liesman, 2015; Yukhananov, 2015).

¹⁸ In this context, although it does involve extensive asset purchases, one should not paint Switzerland's policy as QE closely comparable to that being operated by other leading central banks. The assets being bought are outside Switzerland; as such it is a form of FX intervention as well as being a monetary expansion (since the purchases are not sterilized). "Sterilized FX" intervention is generally approved of only when the exchange rate has become misaligned with fundamentals, or to reduce short-term volatility; otherwise using such intervention to achieve an increase in demand at home at the expense of other countries is usually frowned upon as a beggar-thy-neighbor policy. Switzerland's intervention can be seen as mid-way between sterilized intervention

46. In the internal debate there is evidence of unease among some staff about the continuing validity of the judgment that the CHF was overvalued, and an acknowledgment that the Swiss policy could be seen as beggar-thy-neighbor, given doubts about the applicability of the Fund's external sector assessment in the complex Swiss environment.

47. Departmental comments on draft PNs reveal that there were also different views in the Fund as to the merits and risks of negative policy interest rates. Thus, staff recommendations included cautions (perhaps overdone) on the threat to bank profitability of negative interest rates. In practice, this risk was mitigated by the two-tier policy rate structure. In addition, leading banks had increased spreads and fees, taking advantage of the public's tolerance of what was perceived as cross-subsidization of losses being made to allow continued avoidance of negative retail deposit rates. Indeed, overall, at least by early 2013, the Fund (encouraged by the Danish experience) was already recommending charging negative interest rates on bank excess reserves, and at the end of 2016 recommended pushing the policy interest rate even more negative (against the view of the authorities that this could accelerate substitution into high denomination cash).¹⁹ The Fund also encouraged the SNB to narrow the inflation target to the top of the 0–2 percent range; but this was rejected by the authorities as impractical. Fund advocacy of macroprudential tools to head off the risks of a property bubble driven by low interest rates (this had become a standard house view at the Fund) got a better reception—see the discussion in Rebucci and Zhou (2019).

48. The Fund's official view on Swiss UMP from 2015 on has stabilized around the need for a better delineation of tools and clearer guidance on a narrow inflation target range. But in 2018 there is still evidence of a range of opinions within the Fund on a monetary policy that can best be described as *sui generis*. In particular, there is still unease among some staff members with the degree of reliance on FX intervention (exemplified in MCM's call, in its comments on the 2018 PN, for an immediate end to currency intervention).

C. The Czech Republic

Key monetary policy developments

49. The Czech case can be interpreted as a disciplined but innovative application of inflation forecast targeting. Low inflation, spilling over from weakness in the euro area, induced the Czech

and the QE of other central banks. That is why the Fund's appraisal of Switzerland's exchange rate floor and intervention policy hinges to a large extent on the degree to which the exchange rate could be considered misaligned.

¹⁹ At the present policy rate structure, leading banks consider the costs of hoarding cash to be prohibitively high. It is understood that the authorities have informally discouraged banks from offering banknote storage services on any large scale to their larger customers.

National Bank (CNB) to progressively lower its policy rate to what it regarded as a technical zero (actually 0.05 percent) by November 2012.

50. At the same time, the CNB began to hint that, if inflation did not recover, it would be prepared to act on the exchange rate. There was already a known theoretical policy gambit for dealing with such a situation, involving the exchange rate, known as the “foolproof way.” With respect to the exchange rate, the idea, proposed by Svensson (2003) in discussing Japan’s deflationary challenges at that time, was to devalue the currency discretely and announce an intention to keep the value of the currency at or weaker than the devalued rate until inflation was back on target.²⁰

51. That is what the CNB proceeded to do. It moved from a floating rate regime to an exchange rate floor (of CZK27=EUR1) in November 2013, declaring this to be an “additional monetary policy instrument,” rather than a target (Caselli, 2017). The target variable remained the inflation rate. The floor entailed an initial depreciation of about 5 percent.

52. Thanks to the coherent policy framework, the CNB was in a good position to immediately strengthen its communication with the general public in response to the initial negative perception of the introduction of the FX floor. The CNB was able to explain and justify the policy to the general public even though it had negative side effects such as costlier imports and a lower FX value of financial and (at least in the short run) property wealth.

53. With inflation coming back on target, and given that sustainable fulfilment of the inflation target was a precondition for abandoning the use of the exchange rate as a monetary policy tool from the outset, enthusiasm in Czech policy circles for maintaining the peg waned. Exit from the floor was accomplished smoothly in April 2017 and the subsequent appreciation of the currency has not been excessive.

Consultation with the IMF

54. Staff took a notably dovish position as deflationary pressures mounted in 2012–13 with the policy rate approaching zero in late 2012. Fund staff had already been considering, during the run-up to the introduction of the floor, the modalities of a strategy of FX intervention to ward off deflation, as well as alternatives such as QE (of domestic assets) and negative interest rates.

55. Having already discussed specific UMP measures (including FX intervention) that might be employed in the 2012 Article IV Report, the April 2013 draft PN was proactively specific,

²⁰ More completely, as explained in Svensson (2003), the “foolproof way” consisted of three elements: (i) a price-level target path, (ii) a depreciation and peg of the currency, and (iii) an exit strategy—abandoning the peg when the price-level target has been reached and a switching to either standard inflation targeting or price-level targeting. The Czechs did a variant of this when the price-level target in (1) was replaced by their existing inflation target.

noting that “FX interventions would be an appropriate and effective tool for countering deflationary risks. Staff will emphasize that regular, pre-announced, and fixed-size interventions would be the best modality as they would prevent the perception that the CNB has a target exchange rate in mind.”²¹

56. While EUR and RES were supportive of the use of FX intervention, other IMF departments needed to be convinced that no currency manipulation would be involved. Indeed, a spirited inter-departmental debate occurred. SPR “found the language [in the EUR’s draft PN] regarding the use of UMP/FX intervention too strong” (EUR held its ground on this point, and the contested wording was not altered or significantly qualified).

57. Even though the exchange rate floor was not the approach to intervention they had recommended, EUR staff had, by the following year, been converted; the draft PN recommended that the CNB “keep the exchange rate floor in place until deflation risks recede and inflation expectations become re-entrenched around the inflation target.” But SPR continued to be “uncomfortable with the role of the exchange rate floor in inflation targeting and asked to clarify the conditions for exit, driven by the data, and its possible replacement after that, if necessary, with other instruments to help meet the inflation target.” EUR pushed back vigorously (and successfully), “noting that previous staff work has documented that [FX intervention] dominates available alternatives, that it has been endorsed by the Fund during multiple previous Article IV consultations, that conditions have not fundamentally changed since those endorsements, and that spillover costs are negligible.”

58. The Fund continued to monitor the impact of the policy including the potential for a spillover into property prices but found pass-through to be rather lower than expected. Subsequently, staff working papers (e.g., Alich and others, 2015; Clinton and others, 2017) carefully discussed the Czech authorities’ use of the exchange rate floor as a tool of inflation targeting in very favorable terms, one of them describing the measures as “pathbreaking” and a potential model for other countries. This strand of IMF research on monetary policy in the Czech Republic, much of it carried out in collaboration with staff of the CNB, has a long history (Coats, Laxton, and Rose, 2003).

D. Sweden

Key monetary policy developments

59. The case of Sweden differs significantly from the other three countries reviewed here. Unlike the others, there was no major role for an exchange rate peg or floor.²² Though clearly

²¹ The CNB did not follow this recommended approach in their FX intervention policy adopted later.

²² Having lost more than one-sixth of its EUR value in the six months following Lehman, the Swedish krona subsequently strengthened by more than one-third by mid-2012.

influenced by developments in the euro area, especially after 2014, concerns about the domestic housing market and financial stability were relatively more important in influencing the evolution of monetary policy in Sweden. In 2010–13, a hawkish stance differentiated Sweden from the other three, but this was subsequently abandoned in what was interpreted as a striking reversal of policy by the Riksbank.

60. Sweden was (after Israel and Australia in late 2009, and Canada in June 2010) one of the first advanced economies to begin to normalize its policy rate after the acute phase of the GFC. In July 2010, with strengthening economic prospects in Sweden, the policy rate (which had been lowered to 0.25 percent the previous year) was increased by 25 basis points, followed by further increases in the following months until it reached 2 percent a year later.

61. One of the primary concerns of the Riksbank was the strength of the Swedish property market and a worry that a credit-fueled price bubble might be under way. Two views emerged in the internal policy debate (as is very transparently reported in the minutes of the Riksbank's monetary policy discussions). One was that interest rate policy, while mainly focused on the inflation target of 2 percent, should "lean against the wind" of asset price movements.²³ This would imply, in the Swedish environment of 2010–13, a somewhat higher policy rate than generated by the alternative view, which was a flexible inflation targeting or inflation forecast targeting regime.²⁴

62. During 2010–13, a majority on the Riksbank Board (including the governor, Stefan Ingves) favored the first view.²⁵ Governor Ingves remarked towards the end of 2012 that despite high unemployment and low inflation, interest rates must remain high as it was important to take into account "longer-term considerations"—a phrase interpreted as relating to financial stability and bank soundness.

63. Weakness of the euro area economy over 2011–13 and a trend appreciation in the Swedish krone began to take its toll on Swedish economic activity. Furthermore, Swedish

²³ The treatment of housing costs in the Swedish Consumer Price Index (CPI) has been controversial. Since late 2017 the Riksbank has switched to an alternative index, the CPI with fixed interest rate, in which housing costs are not directly sensitive to mortgage interest rates.

²⁴ Lars Svensson, a deputy governor at the Riksbank 2007–13, had long been a notable and vocal academic advocate of the second view. In particular, he believed that interest rate policy was relatively ineffective against asset price bubbles because it might take a very large and damaging interest rate increase to stem an asset price bubble. Instead, targeted macroprudential policies should (on this view) be used to dampen the asset price bubble.

²⁵ At around this time, there was a debate in Sweden about which agency should control the use of macroprudential instruments. Governor Ingves favored at least some of these powers being granted to the Riksbank, suggesting that the agency responsible up to then, the Swedish financial supervisory authority, had displayed inertia in acting against high loan-to-value mortgages and the use of non-amortizing loans, for example. Ultimately the Swedish government decided (in late 2013) that macroprudential policy (including the decision on the countercyclical buffer) would remain delegated to the financial supervisory authority.

inflation was coming in below target and below forecast. Inflation expectations on the part of employers and unions began to dip, creating fears that expectations had become unanchored from the Riksbank's target. This experience resulted in a swing in the Riksbank's stance towards easing, with a 50-basis point cut in the policy rate in July 2014, followed by a move to a negative policy rate in early 2015.

64. By early 2015, then, the Riksbank had moved from a relatively hawkish position to one broadly similar to that of the ECB, with a negative policy rate and QE. Inflation, which (on some measures) had dipped to zero or below, began to return towards the target, reaching 2 percent by early 2017 and continuing to hover around that figure. Following a further reduction in the policy (repo) interest rate in early 2016 (around the same time as the ECB lowered its deposit rate), this rate has remained at -0.5 percent. The Swedish krona continued to weaken into 2018. Swedish monetary policy was still "unconventional," but it had stabilized and achieved its target.

Consultations with IMF

65. Despite the relatively sharp turn in the Swedish monetary policy stance, the Fund publicly always supported what it perceived as the prevailing position within the Riksbank through this period. There was, however, internal debate within the Fund. During the review of the 2013 PN, there was a clear clash between SPR and EUR, with the former remarking that "the reference to the potential need for higher interest rates on financial stability concerns might no longer be timely and could be toned down. If anything, given the high household debt burden higher policy rates could actually [lead] to a precipitous fall in house prices."

66. Similarly, in the internal review of the 2014 PN, MCM had urged that advice on macroprudential policy should be couched in terms of what was needed to "free monetary policy to pursue price stability irrespective of financial risks"—a more dovish stance in respect of monetary policy than was actually adopted in the final version of the note. Significantly, the July 2014 Article IV report continued to push what it perceived to be the majority view of the Riksbank, viz., "leaning against the wind." However, by the time the report was released, the Riksbank had dramatically changed course.

67. By the time of preparation for the 2015 Article IV mission, which also coincided with a change in mission chiefs, the message was decidedly more dovish ("a supportive overall policy stance is appropriate considering the need to raise inflation and to rebuild monetary policy space") and the interdepartmental conflict had disappeared. Instead, comments on the draft PN emphasized "the need to better justify the shift of policy emphasis ... to deflation risks" and (perhaps reflecting some wishful thinking) the hope that "the Staff Report should clarify that there is continuity in our policy recommendation." The 2015 Article IV Report devoted two full pages to a clear analysis of the new policy approach, including its justification based on falling inflation expectations, and backing the decision not to "lean against the wind" of housing prices. It also advocated replacement of what was seen as a misleading CPI indicator.

68. All in all, the documentary and interview evidence suggests that a range of factors, including shifting team composition at the Fund, shifts in the internal Fund debate on the relative merits of a “leaning against the wind” approach to dealing with asset price bubbles, evolving economic conditions (especially the fall in inflation expectations), and shifting views on the cyclical position of the Swedish economy can explain how the Riksbank’s hawkish position gained Fund support until 2013 and the subsequent shift to a more dovish position also gained Fund support after that time. The authorities were pleasantly surprised by staff’s endorsement of the U-turn in monetary stance but did not find Fund advice either before or after the turn as adding particular value to the Riksbank’s internal debate.

69. Energized by the Swedish domestic debate, EUR staff working on Sweden have boosted their analytical effort on understanding the impact of these exceptional monetary policy decisions from 2015 on, with a particular focus on inflation determination in a comparative regional context (Arnold, and others, 2015; Turk, 2016), on understanding the policy influences on housing prices (Turk 2015), and using advanced modelling techniques to analyze the interaction between monetary and macroprudential policies (Chen and Columba, 2016); this work is of wider application and not specific to Sweden.

III. ROLE OF THE FUND

A. The Relation of the Fund with Individual Countries

Did the Fund give helpful advice to the countries?

70. External advice is most helpful when, by engaging with a domestic policy debate (often behind closed doors), it catalyzes change that needs to occur but has not been fully accepted or sometimes even appeared on the radar of national authorities. It can also be helpful if publicly provided advice bolsters acceptance of a decision already taken (though it will not necessarily be helpful if it makes national policy look as if designed simply to appease international institutions).

71. What influence did the Fund have on UMP in the countries under review? The senior central bank officials consulted for this study gave broadly similar answers on this point. They found the interaction with Fund staff, including preparation of responses to Fund questionnaires and the probing discussions at the time of Article IV consultations (and—albeit somewhat loosely linked to monetary policy—FSAP reviews) stimulating and useful. They judged the analysis to be skillful and felt it filled gaps in the national policy debates. National authorities were less ready to attribute direct influence of the Fund’s proposals on the UMP measures actually adopted.

72. That said, there does seem to be quite a wide range of experience even among these four countries.

- The Czech Republic benefited from a lengthy research involvement of Fund staff on monetary policy under inflation targeting in that country, which the authorities stated

had a positive cumulative impact on their capacity for monetary policy-making even if there was not a direct linkage to the specific UMP measures adopted over the past decade.

- In Denmark, the Fund in general did not dig very deeply into the difficult operational issues being faced by the DN, and the dialogue seems to have been kept at quite a high level. The national authorities felt that Fund staff were at best half-hearted in their support of the firm exchange rate peg and accordingly disinclined to enter into detailed recommendations with regard to the necessary accompanying measures to support it.
- It seems clear that the Fund was not influential in the turnaround of monetary policy in Sweden in 2014. After all, the Fund's analysis for Sweden aligned with the hawkish majority view at the Riksbank until (and somewhat beyond) the turnaround. Soon thereafter though (with a new mission chief), and bolstered by the team's considerable analytical work, the Fund's stance became less hawkish.
- For Switzerland, the Fund's advisory efforts were detailed, sustained, and pointed. The staff's assessment of the challenges faced by the Swiss monetary authorities broadly corresponded to the views of the authorities, and this was helpful in countering some critiques both within and outside the Fund that argued the CHF was not at risk of overvaluation. Staff also performed a valuable service in pressing for macroprudential measures to limit the financial stability side effects of UMP and in this they supported the ultimately successful side in an internal debate in Switzerland. The Fund's early advocacy of negative interest rates for Switzerland was also ultimately successful, but only after a delay of some 18 months.

73. At the same time, many of the Fund's detailed recommendations for Switzerland do not seem to have been adopted, notably in relation to exit from the exchange rate floor.²⁶ But national officials dismiss the idea that the Fund's surprise at the January 2015 abandonment of the floor implies a weak relationship with the Fund but rather the imperative to keep such a sensitive decision top secret until announced.²⁷ Following this event, the 2015 Article IV report made several innovative suggestions (including a fee on banks' net conversion of cash into reserves and a pre-announced monthly schedule of FX purchases) that were not taken up by the Swiss authorities.

²⁶ Already in the PN for the Spring 2012 Article IV consultations for Switzerland, Fund staff identified the need for the SNB to "have a well-planned exit strategy from the currency ceiling." This proposition was elaborated with consideration of both upside and downside risks. The somewhat chaotic exit three years later suggests that this advice was not fully taken on board.

²⁷ Communication to the market was also considered by many observers to have been disruptively abrupt and terse.

B. Formulation of Fund Advice

Were Fund staff able to draw on a pre-existing body of work on monetary policy close to the lower bound?

74. No organization was fully ready for the financial crisis. But intellectual curiosity and the global trend, already evident pre-crisis, towards lower and lower neutral real interest rates, should arguably have prompted more preparatory work in the Fund on effective tools for monetary expansion close to the effective lower bound on interest rates and for countries vulnerable to exchange rate appreciation driven by safe-haven flows.²⁸

75. In one relevant area there was a clear pre-existing body of analytical and empirical work, namely, the question of the appropriate value of the exchange rate. Fund staff were equipped with a tool, the external sustainability approach (later external balance assessment), designed to indicate whether the currency was in line with fundamentals. This methodology in general supported the staff's tolerant attitude to Swiss FX intervention and the floor.²⁹ But staff also recognized that it was a relatively crude tool that could not be relied upon uncritically especially for an economy as complex as that of Switzerland.

76. As time went on, the scope of Fund analytical and policy formulation work naturally expanded to cover issues related to UMP more extensively but was still quite limited.

- In September 2013, the Fund issued a policy paper on UMP (IMF, 2013a). It comprised a taxonomy of UMP measures, an assessment of their effectiveness, a mapping of the issues likely to be involved in exit, and discussion of policy coordination and spillovers. However, small countries were not covered in this paper and it did not set out to provide a handbook for UMP policymaking.

²⁸ The pre-crisis literature is not entirely empty. Around the turn of the millennium there was a significant body of work outside the IMF on deflation and monetary policy near the "lower bound," largely inspired by the Japanese experience (Ahearne and others, 2002; Bernanke, 2000; Bernanke, Reinhart, and Sack, 2004; Burdekin and Siklos, 2004; Krugman, 1998) drawing lessons from the deflation period in Japan. In 2002 a cross-departmental IMF task force examined the risk of deflation extending to other countries against the background of some low inflation experiences in China, Germany, and the United States in 1998–02. This earlier work could have helped underpin the response to the country issues discussed in the present paper. However, the task force's report included only a single page on UMP and did not represent an elaborated institutional view on the range of UMP options.

²⁹ Staff used this methodology when, for example, the U.S. and Italian Executive Directors questioned the appropriateness of Swiss currency intervention during 2011 Article IV discussions. When the floor was introduced later in that year, the staff again drew on standard Fund methodologies in refusing to "share the SNB's view that at its new floor of 1.20 CHF/EUR the franc is "massively overvalued" but also in being prepared to "recognize that, in the absence of policy action, further intense safe haven flows would likely have pushed the CHF much higher, to levels that would have imposed significant pressures on the Swiss economy, including the risk of deflation."

- A cross-departmental team produced a report in 2014 entitled “Monetary Policy in the New Normal,” one section of which addressed the question of whether unconventional monetary policies could be useful in “tranquil times” (the answer: mostly not); small countries were not a specific focus here either. The same was true of the Fund’s policy paper on monetary policy and financial stability (IMF, 2014).
- Even the staff’s cross-country report on inflation in small European countries (Arnold and others, 2015) did not come with strong and definitive views about how to use monetary policy to deal with unduly low inflation.
- The Article IV Guidance Note issued in 2015 devoted only just over one page (out of 56) specifically to monetary policy (IMF, 2015).

77. It was only in 2017, five years after Denmark first moved policy rates into negative territory, that a Fund policy paper on UMP (in this case focusing on negative interest rates) really studied the experience of small as well as large countries: the country studies included in IMF (2017) were Denmark, Sweden, and Switzerland as well as Japan and the euro area.³⁰

What was the role of inter-departmental debate?

78. The Czech and Swedish cases display considerable inter-departmental debate within the Fund, as noted above. EUR was often prepared to modify and adapt its recommendations in response to argumentation from the review departments, especially when it related to under-emphasized side effects. Some of the conflicts related to central aspects of policy, and here too EUR was prepared to compromise on language, though we found no cases where it completely caved in. It could be said that the resulting policy line was balanced, albeit perhaps muted and blurred by compromise.

79. The most vigorous interdepartmental debate occurred in the Swiss case. After the removal of the Swiss exchange rate floor, a lively interdepartmental discussion on post-floor monetary policy options informed the PN for the 2015 Article IV, with RES, SPR, and MCM chipping in. This led to a strong and relatively detailed package on monetary policy in the pre-mission PN authorizing the team to “stress the need for clear and careful articulation of the SNB’s monetary policy framework” against a background where “the SNB’s decision ... has created some uncertainty about its monetary policy framework going forward.” (SPR continued to comment substantively after the mission).

³⁰ There was also some staff econometric research that was quite relevant for small advanced economies. This would include such papers as Varghese and Zhang (2018), which (like Arnold, and others, 2015) focused on the Czech Republic, Poland, Sweden, and Switzerland. Spillovers from large economy UMP to Sweden and Switzerland (as well as the United Kingdom) were estimated by Diez de los Rios and Shamloo (2017).

To what extent did cross-country issues influence Fund recommendations?

80. Cross-country issues were often the focus of pre-mission interdepartmental debate, much of it centered around standard Fund methodologies on exchange rate over-valuation (IEO, 2017). However, these methodologies are not precise, and in none of the cases did the Fund take a strong public position against UMP on these grounds. Naturally it was in the largest of the economies (Switzerland) that this was most controversial (see above on 2011/12). Did Swiss monetary policy have a beggar-thy-neighbor character, as it might have if the currency was not misaligned? In the end, as we have seen, while this issue was debated internally, the Fund's recommendations mainly focused on the domestic impact of the CHF's exchange rate movements.

81. The small size of each of these four economies (between them accounting for only 2.3 percent of global GDP) reduces the importance of cross-country effects from any one of them. But Fund recommendations should have a cross-country coherence: ignoring cross-border spillovers in a small country could become a precedent for a larger country. Besides, spillovers could be more important for neighboring countries (for example, about 12 percent of Denmark's trade is with Sweden, and 8 percent of Sweden's trade is with Denmark). Indeed, as we have seen, in the case of Switzerland an additional spillover aspect was discussed by staff (though seen as secondary), namely the potential financial stability impact of a CHF appreciation in neighboring countries where banks had made sizable CHF-denominated loans to unhedged households and other borrowers.

Was Fund public and private advice appropriately independent of national government preferences?

82. Although a few instances have been noted above where the Fund publicly differed from the national authorities in their monetary policy advice, it remains the case that the public opinions expressed by the Fund on UMP were broadly supportive of the thrust of policy. But this support was also evident in internal non-public documents. In the case of the most dramatic initiative, while they had not anticipated or recommended it, the Spring 2012 PN makes it clear that the staff supported the Swiss exchange rate floor: "The introduction of the [ceiling/floor] was an appropriate policy response under the circumstances. In the summer of 2011, the risk was sizable that continuing exchange rate appreciation might lead to a severe recession and deflation. [D]omestic quantitative easing was not feasible given the small size of the domestic bond market, while discretionary fiscal policy was severely constrained by fiscal rules. Finally, capital flow management measures would have been difficult" (IMF, 2012). While this is not a ringing endorsement, it also seems indisputably correct.

83. We have already noted the correlation between the Fund's view of Swedish policy and the shifting position of the Riksbank yet have argued on the basis of interviews that this should not be seen as due to a lack of Fund independence, but rather reflects, in part, shifting Fund staff assignments as well as changing economic circumstances.

84. In the four countries examined here, both mission chief and staff turnover were elevated between 2008–17, with an average mission chief duration of around two years and about three-quarters of team economists leaving the team after their first mission. In general, the frequency of team leader rotation and the effectiveness of the internal interdepartmental review process are safeguards against staff “capture” to the ways of national authorities. As against that, too frequent a rotation can militate against the building of relationships of trust, and against the Fund being deeply aware of national policy specificities (though this was not reported as a problem by the monetary authorities in the countries visited for this study).

85. At the same time, any reader of Fund reports will easily be persuaded that there is an implicit institutional reluctance—by no means confined to small advanced economies—to make strident public criticism of policies even if (as may have been the case for Denmark) the national policy stance is not considered first-best by relevant Fund staff.

Was the scope of the Fund’s advice sufficiently broad?

86. The novelty of some of UMP measures means that many different policy questions arise. The central questions relate to the choice of UMP instruments (asset purchase, interest rates, forward guidance, and exchange rate commitments) and calibration. Then there are questions of the potential adverse side effects, including financial stability (and bank profitability) and income or wealth distribution. Finally, there is planning for the eventual exit from UMP.

87. In all of the cases examined, Fund staff assessed the likely effectiveness of the tools employed and their calibration (including the question of whether the measures were over-expansive); they had less to say about alternative tools in Denmark and Sweden than in Switzerland and the Czech Republic. The main potential side effects mentioned were the risk of cheap credit stoking up an asset price bubble and the potential impact on bank profitability (Turk, 2016); distributional issues do not appear with any prominence. Exit was discussed especially for the exchange rate floors, though (as mentioned) without evident influence.

IV. CONCLUSION

88. The overall conclusion is a mixed one. The picture is one of an institution not particularly well prepared for the complexities of advising small advanced economies on their optimal reaction to UMP in the major advanced economies, or on the use of UMP in their own systems. But the Fund was able to draw on a wide pool of staff expertise and flexibility, and it provided advice that was rarely off-base and usually seen as providing a helpful contribution to the internal and sometimes external monetary policy debates. This was particularly the case for the Czech Republic and Switzerland, where monetary policy issues received considerable attention, and less so for Denmark and Sweden.

89. That the Fund was not institutionally well prepared with a comprehensive doctrine in this area did not cripple the Fund’s surveillance work and policy advice. But it meant that staff and

management advice to these countries depended on the ability of Fund staff to grasp quickly the diverse monetary policy problems faced by these countries, to understand local specificities, and to synthesize reasonable policy responses.

90. Staff views were not uniform, and it is possible to detect some variations between the approaches in different countries and over time: internal documents do reveal genuine internal debate within the organization. Given the novelty of the crisis as it evolved, and the wide scope for professional differences of opinion as reflected in a wider literature, this diversity of views arguably reflects a healthier institutional response than would a monolithic institutional position.

91. The areas of emphasis chosen by the IMF for its advice varied over time and between countries. To a considerable extent, staff were reacting to policy pressure points that were already the focus of debate in national capitals. In some cases, notably Switzerland, staff were more proactive in exploring alternative techniques and tools and were in particular ahead of the curve in advocating for advance planning on exit strategies. Macprudential side effects were at the fore of the staff's analysis in all four countries, including the potential impact of low and negative interest rates on bank profitability, and the potential international repercussions of each country's UMP were subject to the Fund's external balance assessment. Internal distributional issues resulting from UMP do not seem to have been given much attention in any of the four countries reviewed.

92. The monetary authorities in the countries studied all benefit from a high degree of professionalism and skill among their own staff. They also have access to many other sources of advice and information in addition to the Fund, including regular interaction with other central bankers at the BIS bi-monthly governors' meetings. Against this background it may not be surprising that, while they appreciated the debate and challenge afforded by their interactions with IMF staff, the authorities in the countries studied did not see IMF staff as having been particularly influential in formulating policy. Indeed in a few cases the policy measures came as a surprise to IMF surveillance staff.

93. IMF staff positions on UMP derived from a technocratic process not overly sensitive to political concerns. Published Article IV Reports tended to provide somewhat more support for the policies being pursued by the governments concerned than the internal discussions; however, there is no evidence of staff views being suppressed by senior management in order to bolster the national policy status quo.

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