FOR INFORMATION

SM/20/133
Correction 1

August 3, 2020

To: Members of the Executive Board

From: The Secretary

Subject: **Norway—Publication of Financial Sector Assessment Program Documentation—Technical Note on Systemic Risk Oversight and Macroprudential Policy Framework**

Board Action:	The attached corrections to SM/20/133 (7/28/20) have been provided by the staff:
Factual Errors Not Affecting the Presentation of Staff's Analysis or Views	**Pages 2, 37, 38, 41, 42, 43**
Questions:	Mr. Hofman, MCM (ext. 38415) Mr. Saiyid, MCM (ext. 35477)

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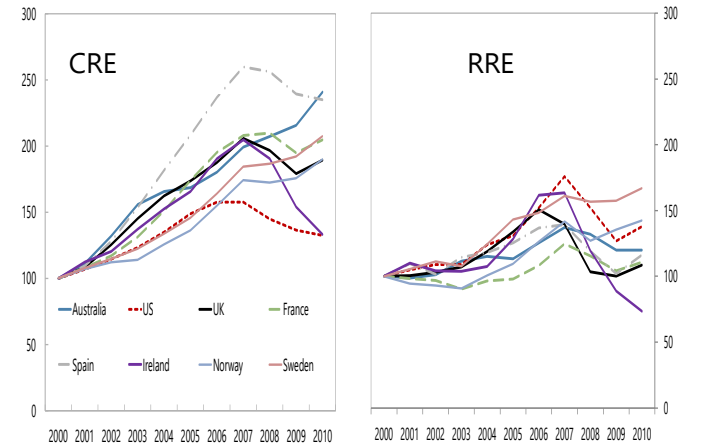
Box 3. International Comparison of CRE Vulnerabilities

History has shown strong cyclicality and cross-border correlations of CRE markets, creating risks to financial stability and economic growth. CRE prices more than halved in past crises in several countries (e.g., Norway and Sweden in late-1980s/early-1990s financial crises; Ireland, Iceland, UK, and US during the GFC). The boom-bust cycle in the CRE sector has been highly correlated with the residential real estate (RRE) sector; although the price effect tends to be much stronger in the CRE sector. For many countries, domestic CRE markets are also highly synchronized with the global/regional CRE markets, given cross-border capital flows, global search for yields, and interconnectedness of financial institutions, which may further amplify boom-bust cycles, resulting in substantial losses to financial institutions. The subsequent impact on investment and GDP growth due to the credit crunch has also been significant— investment fell by more than 10 percent in Sweden and Norway during the banking crisis, around 25 percent in the US and more than 10 percent in the Euro Area during the GFC.

Commercial and Residential Real Estate Prices (Index, 2000=100)



Sources: OECD, MSCI, and IPD.

Many ~~countries~~ economies are experiencing a combination of high prices and low yields in the CRE sector, making them particularly vulnerable to a repricing of risk premia. ECB scoreboard and ESRB survey results signaled more pronounced risks with high and still rising CRE prices in Germany, France, Finland, the Netherlands, and Norway. And in some of these countries, risks are particularly concentrated among well-located and high-quality properties. For example, in Norway, price pressures are most pronounced in Oslo's prime office market. Some ~~countries~~ economies outside Europe, e.g., Australia, Hong Kong SAR, and Singapore, are also experiencing price booms in the CRE sector.

CRE markets marked by concerns about revenues and profits tend to be more vulnerable. Such markets can be excessively leveraged or have a poor track record of repayment capacity. For example, Belgium, Denmark, Finland, Germany, UK, and the Netherlands (along with stressed Euro Area countries and newer EU member states) have high vacancy rates (signs of return at risk).[1] The stressed euro area countries are still suffering from legacy NPLs associated with their CRE exposure since the GFC. Such concerns are less prominent in Norway, however, given the low vacancy rates and NPLs. In addition, the pre-lease requirement to qualify for VAT deduction effectively limits speculative construction of commercial buildings and underpins occupancy rates.

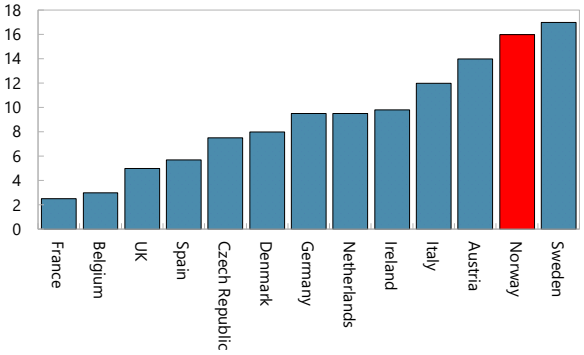
In many countries, banks are highly exposed to the CRE sector, although exposures vary across countries. Among the advanced European countries, Norway has one of the highest exposures to the CRE sector (16 percent in total lending), followed by Austria, Denmark and the Netherlands. France, Belgium, Spain, and the UK have relatively less exposure. Bank lending to the CRE sector is still growing in Norway, though the pace is not particularly fast compared to its peers (e.g., growth is comparable to that in Sweden but much slower than in Finland).

Box 3. International Comparison of CRE Vulnerabilities (Concluded)

In some ~~countries~~ economies, foreign investors are increasingly important. Although the diversification of CRE financing sources across borders increase risk sharing, the presence of foreign investors can amplify boom-bust cycles through higher synchronicity with global CRE markets and generate contagion risks for across international banking system. Foreign intra-regional (within the EU) and cross-regional (from outside the EU) investments accounted for an average of 42 percent of CRE investments between 2006 and 2015. The share is larger particularly in the CEE, Baltics countries and Luxembourg. Many small open economies that are regional trade and financial hubs also tend to attract sizable foreign investments (e.g., Hong Kong SAR, Singapore (90 percent)). For others, the shares are relatively lower, but foreign investors are playing an increasingly important role in these markets (e.g., increased from below 20 percent in early 2000 to 30 percent in 2018 in Sweden). In Norway, 18 percent of the investments are foreign (Box 3), which is not particularly high compared to its peers.

CRE companies are also becoming more reliant on non-bank financing. Although this helps diversify the funding structure, investors' attempts to quickly withdraw capital from the bond market in stressed conditions could lead to fire sales of underlying assets and to a sudden decline in CRE prices, in particular if banks are not willing or able to replace the dried-up bond financing. Although the existing exposures of non-banks (e.g., insurance companies, investment funds, bond markets) are small; the exposures are growing rapidly in many countries. The exposure of insurance companies to CRE now represents more than 5 percent of their total assets in Cyprus, Croatia, Finland, Sweden, and the Netherlands. The investment funds are growing at rates exceeding 10 percent in Finland, France and several emerging European countries. In the case of Norway, financing to CRE only account for 3 percent of insurance companies' total portfolio. The bulk of the non-bank financing is through bond issuance, which has increased from 2 percent in early 2000 to 8 percent in 2017.

Bank Exposure to CRE Loans
(in percent of total bank loans)



Sources: ESRB

[1] ECB scoreboard and ESRB survey results.

60. As a result of the importance of CRE risks, many capital-based prudential measures have been introduced for the sector. Norwegian banks adopted the risk weight floor of 100 percent on CRE exposures for banks using the standardized approach in 2014 under the European framework. But with further buildup of vulnerabilities in the CRE sector, the authorities introduced intensified oversight and Pillar II capital add-ons for banks with concentrated exposures in 2018. In the same year, the FSA also conducted a thematic inspection on bank loans to CRE companies, covering eight Norwegian banks and three foreign branches. As discussed above, the MoF has announced a temporary risk weight floor of 35 percent for IRB banks to become effective end-2020.[22] The increase of the countercyclical buffer from 2 to 2.5 percent, effective at end-2019,

[22] This will also apply to foreign bank branches. Hence, this is another example of the authorities responding to policy leakages. Other examples include new measures on consumer loans in 2017.

Box 4. ~~Cross-Country~~ Use of Macroprudential Tools Geared Towards the CRE Sector

There is a broad range of macroprudential instruments available to address CRE-related vulnerabilities. EU legislation, through CRR/CRD-IV, provides some capital-based instruments that target CRE-related vulnerabilities in the banking sector, including increased risk weights, and tighter loss given default (LGD). In some cases, the CCyB or SRB can also be adjusted to address CRE risks. Depending on individual national legislation, borrower-side measures such as caps on LTV and DSTI can also be used. Beyond macroprudential measures, countries can use other measures, such as microprudential measures including intensified oversight or Pillar II add-ons—or taxes to influence the relevant parties' incentives (e.g., interest deduction limitation rules).

Objective	Target	Measures
Excessive credit growth and leverage Borrowers' resilience	Borrowers	Limits on loan to value (LTV) Limits on debt service coverage ratio (DSCR) or interest coverage ratio (ICR) Mortgage lending value requirement
Bank Resilience	Banks	Risk weight (SA Banks) Risk weight (IRB Banks) Loss given default (LGD) Systemic risk buffer (SRB) Countercyclical risk buffer (CCyB) Pillar 2 requirements [Sectoral CCyB/SRB]
Exposure concentration	Banks	Exposure limits
Indirect exposure	Non-banks	Leverage limits, suspension of redemptions.

Each set of measures has its own advantages and limitations.

- **Capital measures** mainly aim at safeguarding bank resilience. They have the advantage of covering both existing and new loans. Countries can raise risk weights on banks using standardized approach based on Article 124 of CRR, though there are fewer possibilities to raise risk weights for IRB banks. Article 164(5) of the CRR also allows national authorities to set higher LGD values for CRE. Use of broad-based tools such as the CCyB or SRB helps increase bank's overall resilience but are less targeted to sector-specific risks. Another general limitation associated with bank capital measures is that risks arising from non-bank exposures or foreign investments are not addressed, potentially leading to policy leakages.

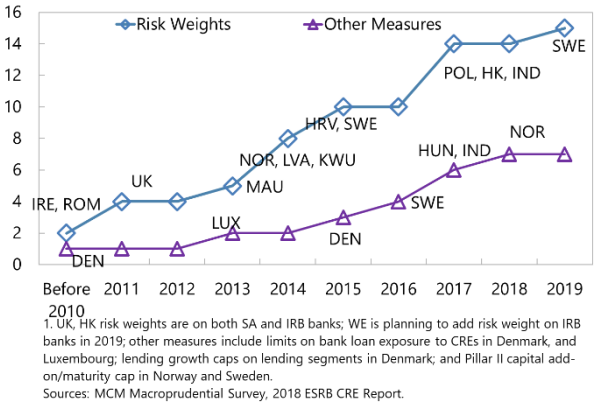
- **Borrower-side measures** could be used to complement the capital measures as they directly target reducing excessive credit growth and valuation stretch and increasing borrowers' resilience. The latter is particularly important from the macrofinancial stability perspective given CRE's interconnectedness with other industry activities and the potential spillover implications to the rest of the economy (e.g. developers of the RRE sector). They also have the advantage of covering both bank and non-bank domestic borrowers. But like the capital measures, risks from foreign investors would still not be addressed. Another key challenge is the calibration, which is complicated by the sector's heterogeneity (Box 3).

- **Tax and capital flow management measures (CFMs)**, in some specific circumstances, it can be useful to disincentivize speculative short-term investments (though this does not seem to be of direct relevance for Norway at the current juncture). Although stamp duties are quite effective in Hong Kong SAR and Singapore in terms of mitigating excessive growth in property prices and complementing otherwise tight macroprudential measures, it is not possible to implement such stamp duties that vary across residents and nonresidents.[1] In EEA countries due to the regional agreements. Interest deduction limits, on the other hand, have proven to be quite effective in reducing the debt bias, particularly for highly leveraged CRE firms.[2]

Box 4. ~~Cross-Country~~ Use of Macroprudential Tools Geared Towards the CRE Sector (cont'd)

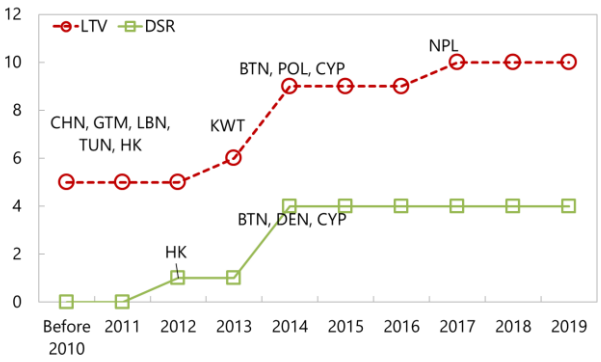
In practice, capital-based measures have been implemented in several advanced ~~countries~~ economies. A risk weight floor of 100 percent has been applied on CRE exposure among banks applying the standardized approach in many European countries (including Norway) in line with national discretion in the CRR (ESRB Macroprudential Policy Survey). Only a few countries apply risk weight floors on IRB banks. UK has a slotting system with risk weights ranging from 50 to 250 percent based on the risk level for the IRB banks. More recently, Sweden and Norway are proposing to impose the risk weights on CRE exposures for IRB banks. Hong Kong SAR also has differential risk weights for IRB banks depending on the property characteristics. In addition to risk weights, some countries also justified their activations of the SRB (Croatia and Hungary), and the CCyB (Norway, the Netherlands, Australia, and Ireland) to partly address CRE-related vulnerabilities.

Macroprudential Measures on CRE, Evolution[1]
(Number of new measures)



1. UK, HK risk weights are on both SA and IRB banks; WE is planning to add risk weight on IRB banks in 2019; other measures include limits on bank loan exposure to CREs in Denmark, and Luxembourg; lending growth caps on lending segments in Denmark; and Pillar II capital add-on/maturity cap in Norway and Sweden.
Sources: MCM Macroprudential Survey, 2018 ESRB CRE Report.

Macroprudential Measures on CRE, Evolution
(Number of new measures)



Sources: MCM Macroprudential Survey, 2018 ESRB CRE Report.

Very few advanced ~~countries~~ economies have used the borrower-side measures for CRE-related risks. Denmark, Hong Kong SAR, and Cyprus are the only examples based on the IMF and ESRB macroprudential policy surveys. Emerging markets ~~(EM) countries~~ have been more active. Hong Kong SAR has the tightest LTV (30-40 percent) and DSTI limits (20-30 percent) among ~~the countries~~those that applied the borrower-side measures, with values depending on the size of the loan and borrower characteristics (first-time, foreign or not). Since 2012, the Hong Kong Monetary Authority (HKMA) has tightened the limits on a number of occasions from 50-60 percent for DSTI limits and 50 percent for LTV limits. Most LTV and DSTI limits in other countries range between 55-65 percent and 60-80 percent, respectively.

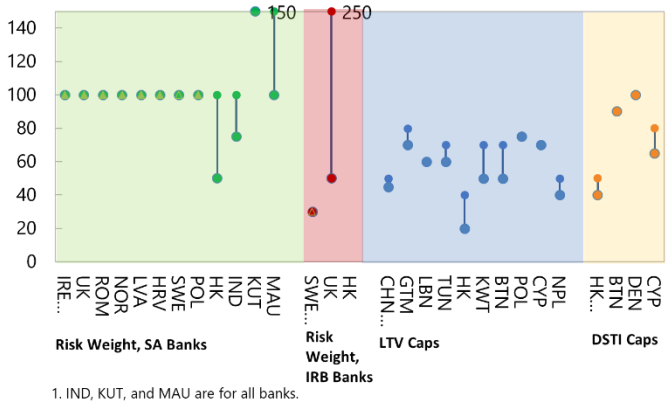
There has been limited evidence on the effectiveness of these measures in managing CRE cycles, given the short history of use and policy leakages, for example to international investors in the case of Hong Kong SAR and Singapore.

The limited use of borrower-side measures may reflect operational challenges. First, the valuation of CRE properties is more challenging than for residential properties; hence more due diligence is needed in assessing and updating valuations. This needs to be either conduced internally by banks and/or by external agencies, which can use different methodologies with potentially wide-ranging results. In the case of Hong Kong SAR, if valuations are done by banks, period checks (preferred quarterly) are required by external agencies to ensure they remain prudent. If the valuation is done by external agencies, banks need to establish policies and procedures to ensure the reliability of the valuation. Second, sectoral heterogeneity (Box 3) may complicate the calibration of limits, and one universal limit is unlikely to be appropriate. However, in the case of Hong Kong SAR, and many other places ~~countries~~ with borrower-side measures, no differential limits were applied for different sectors.

Box 4. ~~Cross-Country~~ Use of Macroprudential Tools Geared Towards the CRE Sector (concluded)

Other measures have also been used. For example, in Denmark, lending growth to each individual sector is limited to 15 percent (mortgage banks) and 20 percent (deposit banks) and banks' CRE exposure is limited to 25 percent of their total lending. Stamp duties were introduced in Singapore, Hong Kong SAR, Australia, Canada, and the UK to limit speculative foreign investments. Other possibilities are increased property taxation, reduced tax deductibility of interest payments or higher capital gains taxes, which lower the return on CRE investments and better align demand and supply in the market. Many countries, including Norway, have limits on interest deductions.[2/] In addition, reforming land and urban planning policies could help improve the elasticity of supply and contain CRE price growth (ESRB report 2018).

Macroprudential Measures on CRE, Magnitudes[1]
(in percent)



1. IND, KUT, and MAU are for all banks.
Sources: 2017 IMF Macroprudential Policy Survey, 2018 ESRB Report.

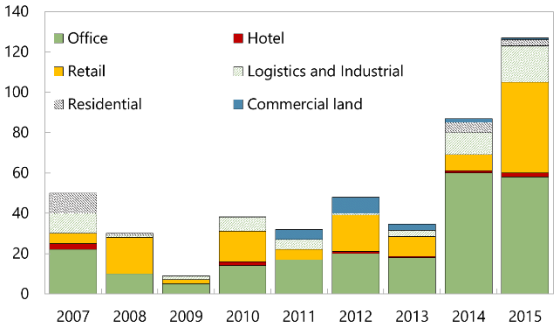
[1] The stamp duties in Hong Kong SAR and Singapore, which discriminate between residents and nonresidents, are considered both CFMs and macroprudential policy measures under the IMF Institutional View.

[2] De Mooij and Hebous, 2017, Curbing Corporate Debt Bias: Do Limitations to Interest Deductibility Work?

Box 5. Key Characteristics of the Norwegian CRE Market

The CRE market is rather heterogenous in terms of business activities and property types. There are three main business types—*rentals and management*, *purchases and sales*, and *development of construction projects*. The rental management companies account for a majority of the CRE market—some 83 percent of net debt and 86 percent of earnings. Many large CRE company groups involve multiple lines of business simultaneously (i.e., both development and rental of properties). The CRE companies can own or manage properties for use as office or retail space, hotels, manufacturing, and logistics. In the past ten years, the office segment has accounted for around half of the total value of transactions in the CRE market, followed by the retail segment that accounts for 1/3. Close to 60 percent of all offices (in terms of square meters), which have been built in Norway in the past decade, were in Oslo. This figure is likely higher in value terms.

CRE Companies by Sector
(in percent)



Source: Marius Hagen, 2016, Commercial Real Estate in Norway, Economic Commentary.