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BACKGROUND PAPER

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Capital Flow Measures and Housing-Related Issues in Advanced Economies

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ABBREVIATIONS

ABSD	additional buyer's stamp duty
ACHNS	Australia, Canada, Hong Kong Special Administrative Region, New Zealand, and Singapore
ACT	Australian Capital Territory
AREAER	Annual Report on Exchange Arrangements and Exchange Restrictions
BIS	Bank for International Settlements
CFM	capital flow management measure
DSR	debt-service ratio
DTI	debt-to-income ratio
EA	euro area
EU	European Union
G20	Group of Twenty
GDP	gross domestic product
GFC	global financial crisis
GFSR	*Global Financial Stability Report*
IV	Institutional View on the Liberalization and Management of Capital Flows
LTV	loan-to-value ratio
MAS	Monetary Authority of Singapore
MPM	macroprudential measure
NSW	New South Wales
OECD	Organization for Economic Cooperation and Development
SD	stamp duty
SSD	seller's stamp duty
TDSR	total debt-service ratio

I. Introduction

1. Capital flows can affect the housing sector primarily because its asset and investment attributes can make it relatively accessible and attractive to international investors. Together with its role as a consumption good and vehicle for finance and wealth accumulation, housing is one of the most important sectors of the economy, crucial for economic and financial stability. Housing tends to be the largest asset class in household portfolios, while house price busts have historically been a recurrent source of financial crises. Affordable access to housing has far-reaching social implications and has become increasingly important and a major motivation for policy intervention.

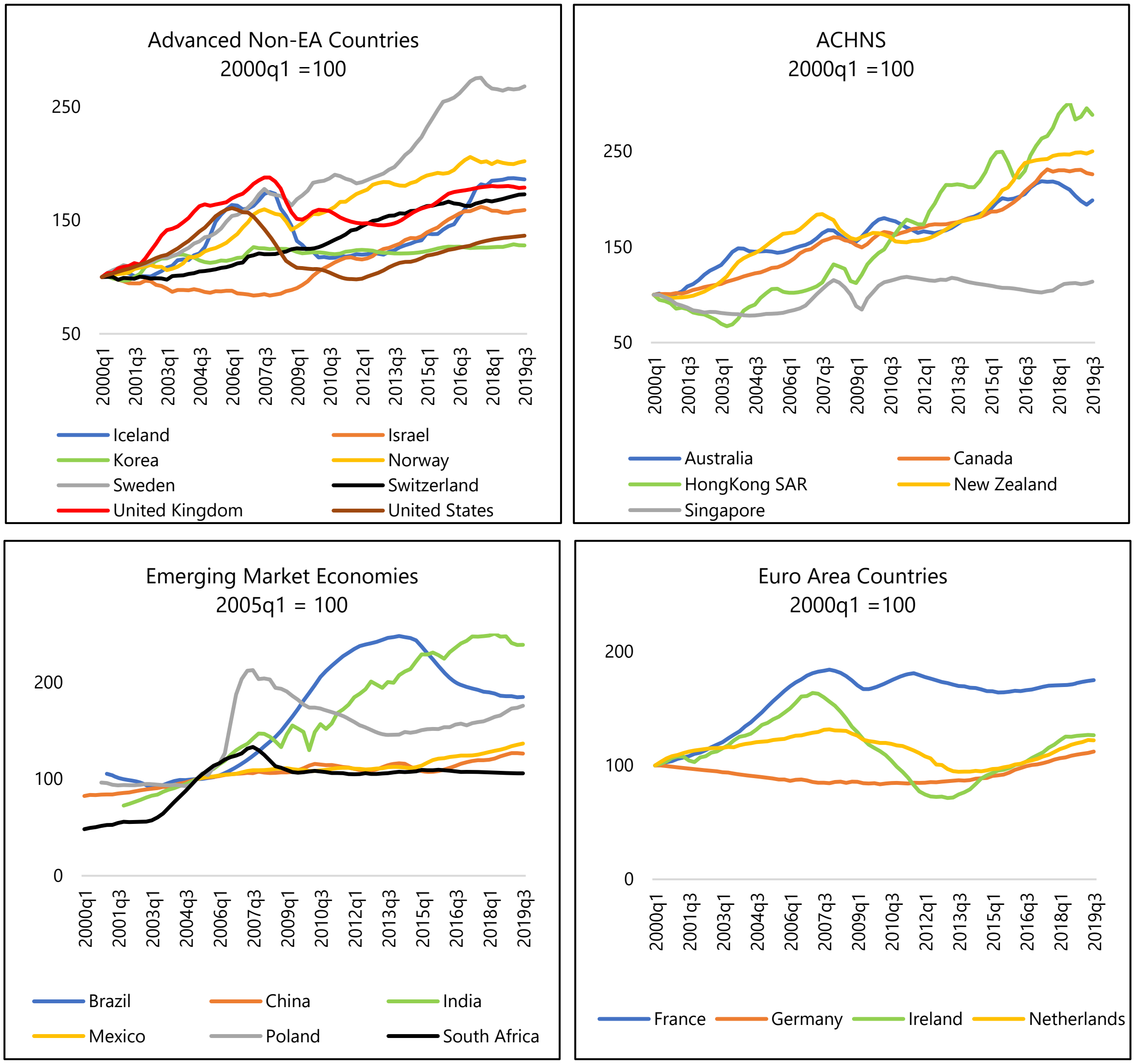
2. Recent house price trends highlight financial stability and affordability concerns. Excessive borrowing and major price corrections in overheated housing markets were a key factor amplifying the severity of the global financial crisis (GFC). Since then, house prices have broadly been on an upward trend, giving rise to renewed concerns about housing bubbles and affordability of home ownership (Figure 1). While overvaluation remains less of a problem than before the GFC, there are signs that house prices may be overvalued again in a number of countries or cities (IMF, 2019h). Affordability indicators have been deteriorating, with price-to-income ratios significantly higher than at the beginning of the century in most advanced economies and price-to-income multiples relatively high (Figure 2).

3. House prices have become more synchronized, especially across major cities around the world, suggesting an increasing importance of international capital flows in influencing price trends (Figure 3). Since the GFC, house price synchronization has risen across advanced and emerging economies. While local factors still account for most of the variation of house prices, the role of global factors appears to have increased (IMF, 2018i, and Figure 4). For major cities, global investors' search for yield and safe assets may be a key explanatory factor, while for countries, increased exposure to global financial conditions may be in play, evidenced by the fact that the dynamics of house prices are increasingly similar to those of other internationally traded financial assets.

4. With the heightened actual and perceived role of non-residents in the housing sector, a number of advanced economies that generally maintain very open capital accounts have adopted policy measures to influence capital flows into the real estate sector to mitigate concerns about affordability and financial stability. Since 2011, five advanced economies—Australia, Canada, Hong Kong SAR, New Zealand, and Singapore (ACHNS)—have all adopted or tightened measures discriminating between residents and non-residents with respect to investment in domestic real estate, mostly in the form of stamp duties and other transaction taxes. In 2019, the United Kingdom held a public consultation on a tax on purchases of land and residential properties by non-residents, without adopting the tax thus far. It should be noted, however, that many countries already have long-standing measures discriminating against non-resident investment in real estate. In some countries there are outright prohibitions on non-

residents' purchases of existing real estate (e.g., Australia) or quotas and/or limitations on portfolio investment in real estate (e.g., China, India, Indonesia, and Switzerland).

Figure 1. Real House Prices



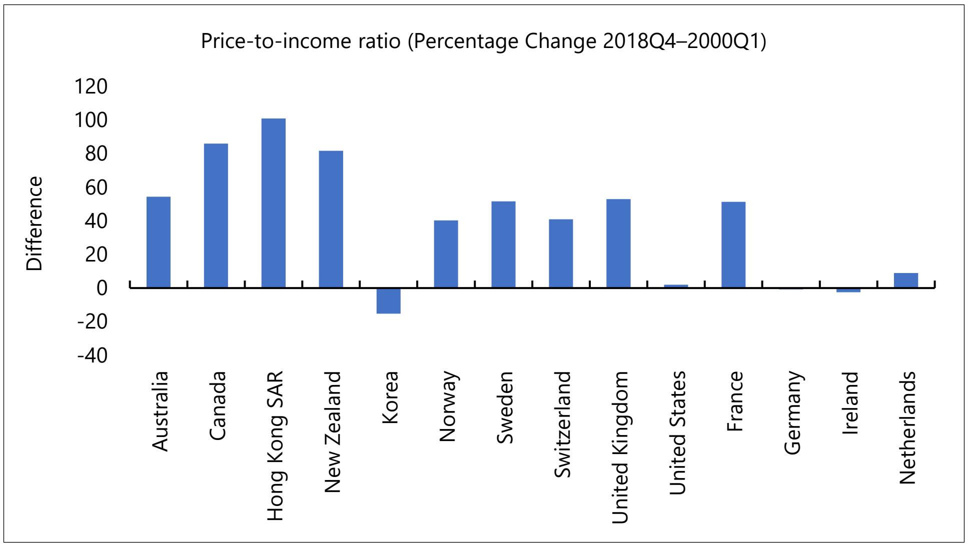
Source: IMF Global Housing Watch.

5. In the application of its Institutional View on the Liberalization and Management of Capital Flows (IV) (IMF, 2012), the IMF has designated the newly adopted measures that discriminate between residents and non-residents as capital flow management measures (CFMs). Under the IV, any such residency-based measure is automatically considered a CFM.[1] Some measures are classified as capital flow measures/macroprudential measures (CFMs/MPMs) when

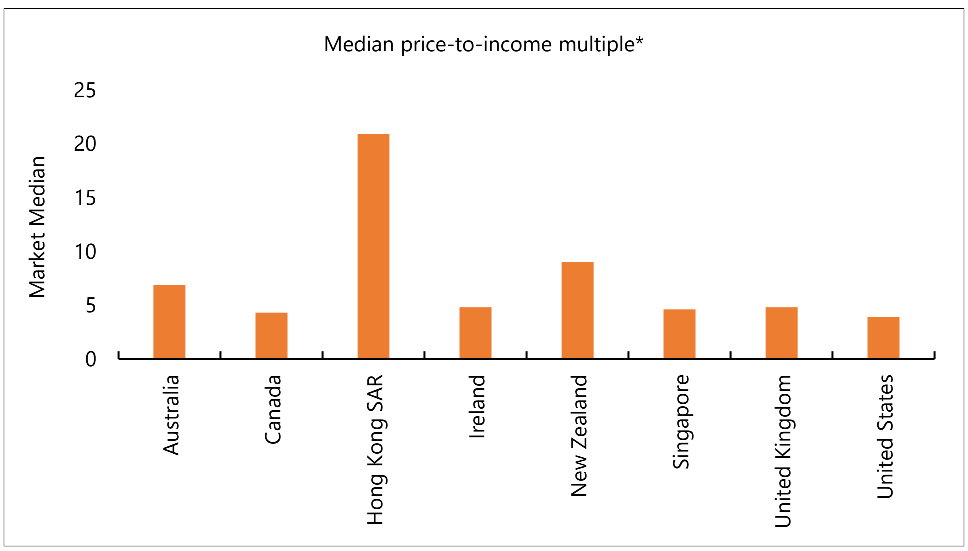
[1] Measures that do not discriminate on a residency basis (e.g., currency-based measures) but are designed to influence capital flows are also classified as CFMs.

their purpose is to safeguard financial stability. Under the IV, CFMs should not be used pre-emptively, but may be appropriate to deal with an inflow surge when: (i) the room for adjusting macroeconomic policies is limited; (ii) appropriate policies require time to take effect; (iii) the inflow surge contributes to systemic financial risks, and/or (iv) there is heightened uncertainty about the underlying economic stance due to the surge. Nonetheless, according to the IV, use of CFMs and CFMs/MPMs should be temporary and phased out as alternative non-discriminatory policies become available.

Figure 2. Housing Affordability

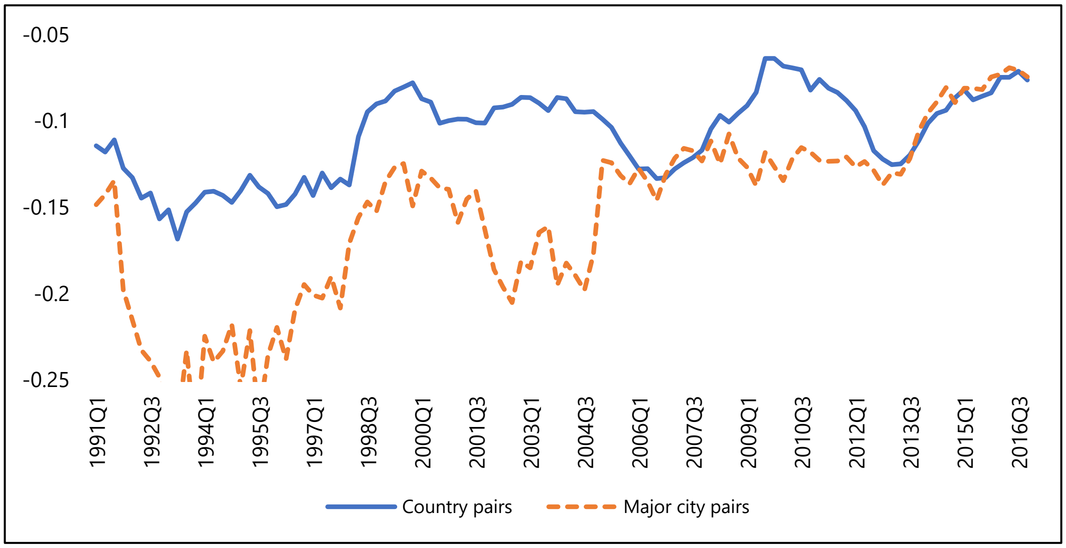


Sources: OECD Analytical House Price database; Global Property Guide.



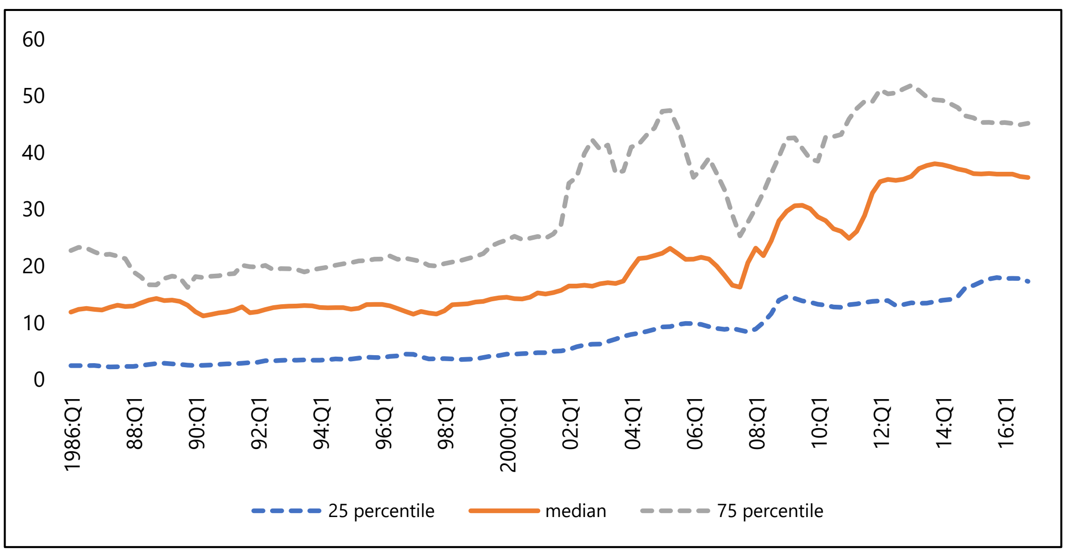
Source: 15th Annual Demographia International Housing Affordability Survey (2019).
*Note: Median multiple = Median house price divided by median household income.

Figure 3. Synchronization of House Price Movement in Advanced Economies
(Median synchronization; closer to zero denotes higher synchronization)



Source: *GFSR*, April 2018.

Figure 4. Relative Contribution of the Global Factor in House Prices
(Window = 15 years; in percent)



Source: *GFSR*, April 2018.

6. The IMF's application of the IV to these housing-related measures has led to some considerable tensions with authorities in the ACHNS economies, in particular in cases where the IMF staff felt that the measures were not justified under the IV even on a temporary basis or when the authorities felt that they were aiming to achieve broader social objectives such as housing affordability and not intending to limit capital flows. In addition, some authorities and

other observers noted that the focus of the IV on whether measures discriminate between residents and non-residents or affected capital flows distracted the IMF from engaging more comprehensively and in a balanced manner on how to resolve housing-related issues.

7. Against this background, this paper reviews the IMF's approach to CFMs affecting the housing sector. It focuses on the value added and influence of the IMF's bilateral policy advice in this area against the background of the IMF's IV. It also analyzes whether IMF advice adequately took into account country circumstances and brought to bear cross-country experience on best practices and effectiveness of different approaches to handle capital flows into housing. The paper will focus on the five ACHNS economies, which provide a rich and diverse experience with CFMs in this context.

8. The paper is based on a review of Article IV reports and other relevant internal and external documents, and interviews of key IMF staff members in charge of the work on the application of the IV and the economies included in the sample. The authorities' views are drawn from Executive Director statements, Executive Board discussions, and (written and phone) interviews of available policymakers in ACHNS. Interviews with the private sector and academics' views have also been drawn upon.

9. The paper is organized as follows. Section II reviews country experience in terms of broad developments in the housing sector and policies adopted to achieve housing-related objectives, with special attention to capital flows. Section III describes the IMF's engagement with housing-sector-related capital flow measures in ACHNS, focusing on the application of the IV, and reports authorities' and other observers' views on this engagement. Section IV highlights lessons from this experience.

II. Country Experience with Capital Flows into the Housing Sector

A. Developments in the Housing Sector and the Role of Capital Inflows

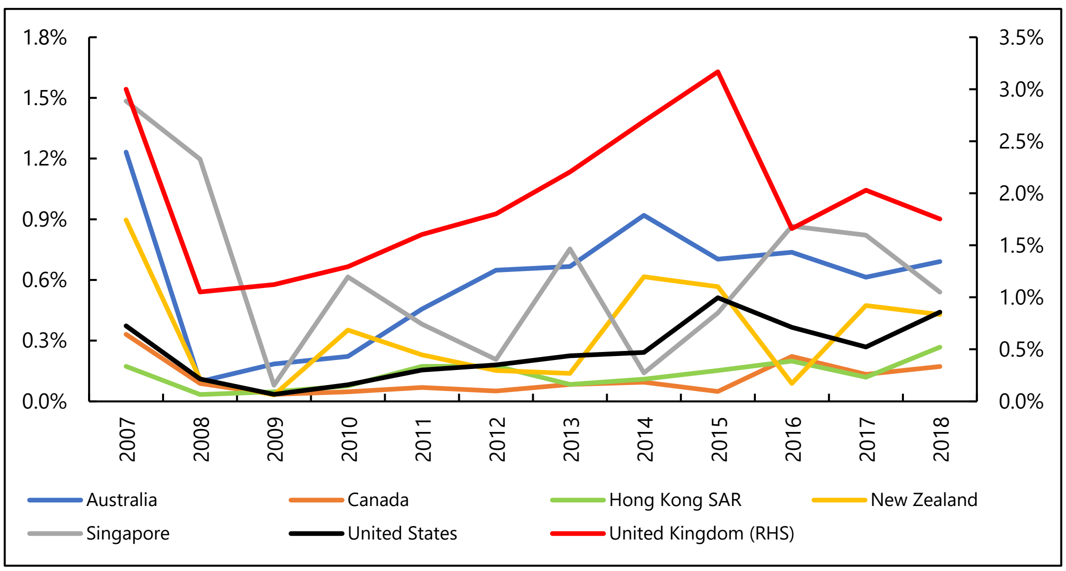
10. Increases in house prices since 2012 have been comparatively strong across the ACHNS economies (see Figure 1). The dampening effect of the GFC was short-lived, especially in the cases of Hong Kong SAR and Singapore, though in the latter case, the subsequent upward trend in house prices was less sustained. In Australia, Canada, and New Zealand, house price growth accelerated somewhat later. With few exceptions, price increases were much faster in ACHNS than in a group of comparable advanced countries or in selected large emerging markets. Price growth in this group has moderated more recently, as it has elsewhere.

11. IMF analysis suggests that house prices appeared to be overvalued to varying degrees and with significant regional differences in all five economies, raising concerns about financial stability and affordability (e.g., IMF, 2017b; 2017c; 2018a; 2018d; 2018f). Authorities and the IMF staff considered housing to be systemic and macro-relevant, given the large amount of household wealth invested in housing and the large share of mortgages in bank assets. On some

metrics, housing is among the least affordable in the world in Hong Kong SAR, followed by New Zealand and Australia (see Figure 2). In Canada and Singapore, housing affordability has worsened, especially in large metropolitan areas. Overvaluation in ACHNS results from structural imbalances between supply and demand, driven by low interest rates and demographics compounded by a slow infrastructure and supply response, in the context of a highly liquid global financial environment. In some cases, such as New Zealand, idiosyncratic factors such as earthquakes have aggravated the demand-supply imbalance, while in Canada the oil boom and bust led to region-specific pressures (Bank of Canada, 2017).

12. Capital inflows into real estate in ACHNS have been quite volatile. Aggregate data show that foreign capital inflows into real estate during 2012–18 peaked at 0.9 percent of GDP in Australia and Singapore, 0.6 percent in New Zealand, and 0.3 percent of GDP in Canada and Hong Kong SAR (Figure 5).[2] This compares to a peak of 3 percent of GDP for the United Kingdom and 0.5 percent of GDP for the United States in 2015. Volatility appears to have been the highest in New Zealand and Singapore.

Figure 5. Foreign Capital Inflows into Real Estate
(In percent of GDP)



Source: Cushman and Wakefield; Real Capital Analytics.
Notes: Transactions-based data using nonconfidential reported real estate market deals, excluding indirect investment and investment in land for development.

13. The role of capital inflows in house price developments is not straightforward to pin down. Some studies suggest that foreign purchases may play a disproportionate role during booms or crises beyond their share of the market, in part because of their volatility. Capital flows

[2] Data include purchases of commercial real estate (but not land) and acquisitions through real estate investment vehicles.

not directed at real estate may also affect house prices, by lowering interest rates or expanding the mortgage-lending capacity of financial intermediaries. Limited information is available on these indirect channels. Yiu and Sahminan (2015) report some positive effects from global liquidity on real estate prices in Singapore.[3]

14. Other evidence suggests that the relevance of capital inflows for the housing sector varies across the ACHNS group. In Hong Kong SAR, activity by non-residents appears to be continuously present and correlated with house price developments (IMF, 2018b). Anecdotal evidence suggests that it varies with China's outflow control measures.[4] Singapore's real estate market has experienced strong regional safe haven interest from foreigners, with a surge in capital inflows into housing immediately after the GFC that boosted house prices (IMF, 2019a). In Australia and Canada, foreigners are particularly interested in the relatively liquid real estate markets of large cities, a phenomenon also observed in Japan, the UK, and the United States (Fuerst, Milcheva, and Baum, 2015). Recently improved data collection on foreign ownership has shown that at the margin, activities by foreigners could have significant effects on house prices in Australia and Canada, though industry observers feel that media reports have overstated the role of foreigners in these countries. In New Zealand, by contrast, there does not appear to be a broad interest from non-residents in the housing market, but a few large purchases by "tech" CEOs have helped spur different perceptions.

B. Policies to Address Housing Issues

15. Well before capital inflows became a challenge, the ACHNS economies all had a broad set of policies in place to deal with financial stability and affordability issues related to housing (see Annex I for country detail). Macroprudential policies had been the main tool to address financial stability concerns, and all the economies have actively tightened these tools in recent years to control leverage and safeguard the soundness of the financial system. In none of these economies did monetary policy respond directly to house price developments, with such a response being further constrained in the cases of Hong Kong SAR and Singapore by the exchange rate regime. In Canada, monetary policy was seen as a last resort to deal with house price misalignment (Poloz, 2015), but was never deployed for this purpose.[5]

16. In addition, supply-side policies have become increasingly prominent as a way to handle supply-demand imbalances in the housing market. Singapore and Hong Kong SAR provide public housing for the majority of their population (whether to own or rent), covering 80 percent

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[3] A study for the United Kingdom (Kneer and Raabe, 2019) reveals some indirect effects through bank balance sheets.

[4] Badarinza and Ramadorai (2016) find evidence of source country risk affecting house prices in London in areas with higher concentration of foreigners from the source country.

[5] This approach seems preferable, as borne out by the experience of Sweden, which experimented with but ended up having to abandon a monetary policy stance that explicitly leaned against the wind in terms of the housing market (Everaert and Honohan, 2019).

and 50 percent of households, respectively. Singapore adjusts land availability and release for private housing to help achieve property price stability, while Hong Kong SAR is continuously expanding supply as much as feasible. New Zealand has embarked on a nationwide building and infrastructure development plan while Australia and Canada have relied more on a private sector response, with infrastructure and regulatory developments (especially with respect to zoning and density) devolved to the regional or municipal levels.

17. Fiscal policy significantly affects the housing sector, but with the exception of some specific tools (see below) is not used to offset price volatility. In all five economies, tax policy favors home ownership, especially of first homes, as a result of mortgage interest deductibility and differentiated taxation (including of capital gains). In most of them, interest is also deductible for investment properties and negative gearing is allowed. In some cases (e.g., Canada), there are first-time homebuyer incentives. Changes in these broad tax parameters have been used only sparingly to address housing issues during the period covered, with New Zealand providing a case where capital gains taxation and negative gearing were adjusted to reduce speculative behavior.

18. ACHNS have actively used real-estate-specific measures including vacancy taxes and transaction-related taxes such as ad valorem stamp duties. These fiscal measures may be considered by supervisory authorities and the IMF staff to be macroprudential in nature as they can dampen house price volatility and speculative activity. They are also an important source of tax revenue, especially for regional authorities (e.g., in Canada and Australia). Some measures, such as vacancy taxes, also directly affect supply-demand imbalances, thereby helping to address affordability concerns. Australia and Canada have vacancy taxes in place, while New Zealand is actively considering them for certain segments of property markets.

19. With foreign capital inflows into the real estate sector becoming an increasing concern to authorities, these sector-specific fiscal tools as well as outright restrictions have been used in a way that discriminates between residents and non-residents (Box 1). According to the authorities, the main motivations for their adoption have been to mitigate systemic financial risk (Hong Kong SAR, Singapore), curb excessive speculation (Canada), improve housing affordability (Australia, Canada, New Zealand), and raise fiscal revenue (Australia and Canada). In Hong Kong SAR, New Zealand, and Singapore, the measures apply economy-wide, while in Australia and Canada they are regional. However, in Australia the number of states and territories applying a stamp duty surcharge on non-residents has been rising gradually (to six out of eight) and one of the other territories has introduced a land tax surcharge for foreigners. In Hong Kong SAR and Singapore, the parameters of these measures have been continually adjusted, almost always in the context of macroprudential policy packages to cool down housing markets. In Australia and Canada, the measures were adopted by regional authorities and not formally coordinated with national macroprudential policies.

Box 1. ACHNS Economies: Residency-Based Real Estate Related Measures

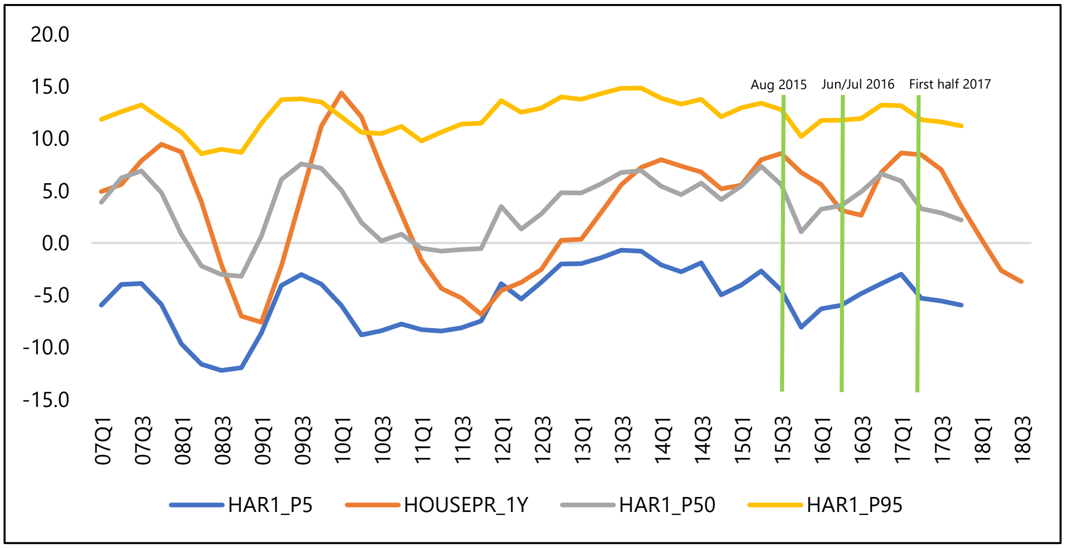
During 2012–19, ACHNS economies implemented the following measures discriminating between residents and non-residents to influence capital flows into domestic housing markets:

- **Australia**: Stamp duty surcharge for foreign purchases imposed by six out of eight states and territories: Victoria, 3 percent from July 1, 2015, raised to 7 percent on July 1, 2016 and to 8 percent on July 1, 2018; New South Wales, 4 percent from June 21, 2016, raised to 8 percent on July 1, 2017; Queensland, 7 percent from October 1, 2016; South Australia, 7 percent from January 1, 2018; Tasmania, 3 percent from July 1, 2018 increased to 7 percent on January 1, 2020 and to 8 percent on April 1, 2020; Western Australia, 7 percent from January 1, 2019. In addition, New South Wales introduced a land tax for foreigners of 0.75 percent in tax year 2017, increased to 2 percent from 2018 onward, and the Australian Capital Territory imposed an extra land tax for foreigners of 0.75 percent on July 1, 2018.
- **Canada**: Additional taxes imposed on non-residents by 2 out of 10 provinces: British Columbia, Additional Property Transfer Tax of 15 percent on August 2, 2016 for the Metro Vancouver District and increased to 20 percent on February 21, 2018 while extended to four more districts; Ontario, Non-resident Speculation Tax at 15 percent from April 20, 2017, applying to the "Greater Golden Horseshoe" region.
- **Hong Kong SAR**: Buyer's stamp duty levied for foreigners at 15 percent from October 2012; double Stamp Duty from February 2013 or New Residential Stamp Duty from November 2016 at higher rate for non-residents.
- **New Zealand**: Nationwide ban on purchases of residential land except for Australians, Singaporeans, and resident visa holders in effect since October 2018.
- **Singapore:** Additional Buyer's Stamp Duty of 10 percentage points implemented on December 8, 2011, increased to 15 percentage points in 2013, raised by a further 5 percentage points for individuals other than Singaporean and permanent resident first time buyers, and by 10 percentage points for non-individuals in July 2018.

20. It is difficult to establish how far measures discriminating between residents and non-residents have contributed to achieving their intended objectives. Granular data tracking home ownership by residency status in a timely and sufficiently frequent manner is generally not collected systemically, except in Hong Kong SAR and to some extent Singapore. In other countries, efforts to improve collection of such data are very recent. Overall, there is limited information or analysis on the expected or actual effectiveness of the measures, although available research suggests that some measures had some effect on house price developments.

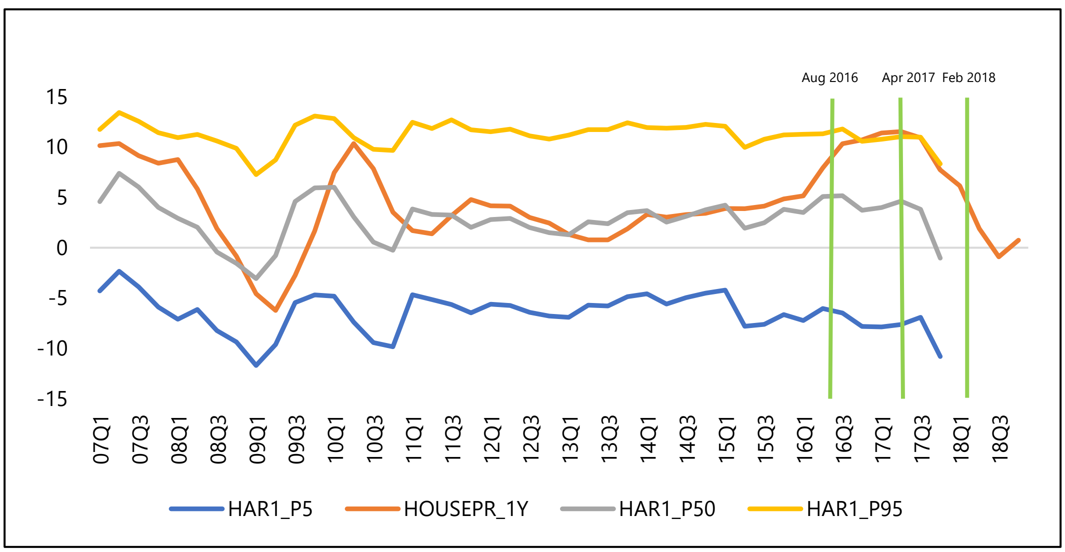
21. In Australia and Canada (Figures 6 and 7), the initial measures did not seem to have much of an impact, but cumulatively they appear to have contributed to waning interest from foreigners, as reported especially in industry and financial publications (Bloomberg News, 2018; Delmendo, 2019; Talton, 2018). Source country factors may have played a role as well, however, and in the case of Australia, observers expressed skepticism about the measures' impact on prices and affordability. For Canada, there is some evidence that the measures affected house price expectations, at least temporarily (Khan and Verstraete, 2019).

Figure 6. Australia: House Price and House Price at Risk



Source: *GFSR*, October 2019.
Notes: (1) CFMs used include •August 2015: Victoria stamp duty and land tax surcharge; •June/July 2016: NSW stamp duty and land tax surcharge, Queensland stamp duty, Victoria raised stamp duty; •First half 2017: National charge on vacant properties and capital gains tax adjustment; Victoria increased land tax surcharge; NSW increased stamp duty and land tax surcharge. (2) House price= one-year percentage change, House price at risk= change in house prices at P percentile one year ahead.

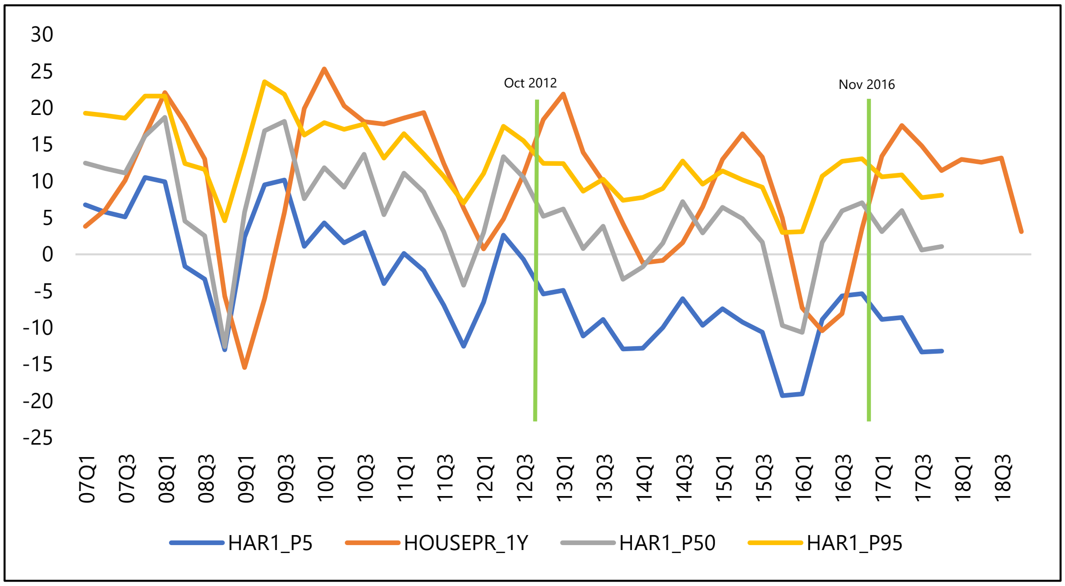
Figure 7. Canada: House Price and House Price at Risk



Source: *GFSR*, October 2019.
Notes: (1) CFMs used include •August 2016 Additional Property Transfer Tax for non-residents (15 percent) in Vancouver area; •April 2017 Non-resident speculation tax (15 percent) for Toronto; •February 2018 Additional Property Transfer Tax increased and geographically broadened (to 18 percent); and •2019 Speculation/vacancy tax introduced in British Columbia.
(2) House price= one-year percentage change, House price at risk= change in house prices at P percentile one year ahead.

22. For Hong Kong SAR (Figure 8), Cheung, Chow, and Yu (2015) found some effects of stamp duties on house price developments, although they tended to be short-lived. The analysis did not distinguish between residents and non-resident duties. Wu, Wong, and Cheng (2017) observed that the introduction of the Double Stamp Duty caused overseas buyers to lose interest in Hong Kong SAR property. Despite the measures, affordability remains a major concern.

Figure 8. Hong Kong SAR: House Price and House Price at Risk

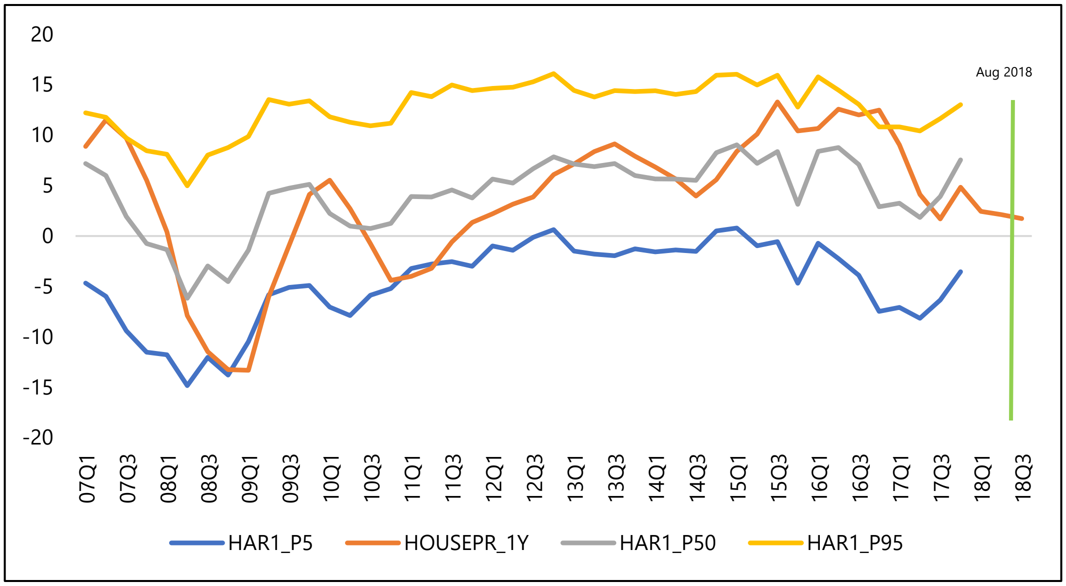


Source: *GFSR*, October 2019.
Notes: (1) CFMs used include •October 2012 Buyer Stamp Duty non-residents (15 percent); •November 2016 Doubled Stamp Duty or New Residential Stamp Duty levied at higher rate on non-residents.
(2) House price= one-year percentage change, House price at risk= change in house prices at P percentile one year ahead.

23. In New Zealand, the ban on foreign purchases of real estate (a CFM) has been implemented too recently to discern any effect (Figure 9). Other non-discriminatory tax measures, implemented in 2015, coincided with a downward shift in the house-price-at-risk distribution and may have contributed to a slowdown of house price growth.

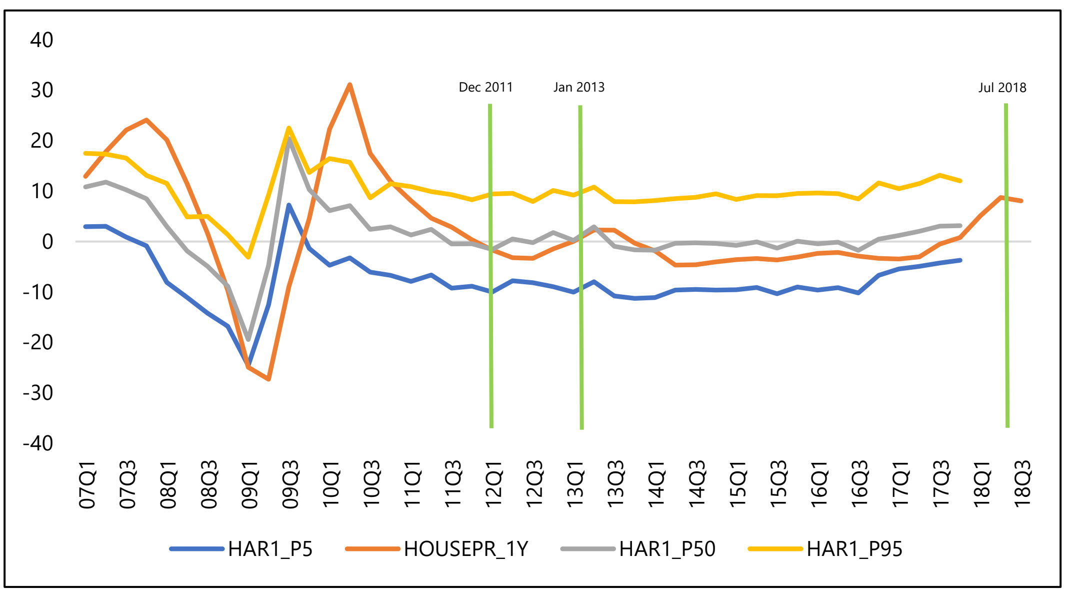
24. CFMs seem to have been the most effective in Singapore (Figure 10), in part because they were implemented within a comprehensive package of cooling measures, leading to a sharp and lasting decline in purchases by foreigners (Seng, Lim, and Leng, 2015). Stamp duties appear to have effectively lowered the number of transactions (Yiu and Sahminan, 2015) and reduced speculative activity (Fu, Qian, and Yeung, 2015).

Figure 9. New Zealand: House Price and House Price at Risk



Source: *GFSR*, October 2019.
Notes: (1) CFMs used include •August 2018: ban on non-resident purchases of residential property.
(2) House price= one-year percentage change, House price at risk= change in house prices at P percentile one year ahead.

Figure 10. Singapore: House Price and House Price at Risk



Source: *GFSR*, October 2019.
Notes: (1) CFMs used include •December 2011: Additional Buyer's Stamp Duty for non-residents (10 percent); •January 2013: ABSD raised (by 5 percentage points); •July 2018: ABSD raised (5 percentage points). (2) House price= one-year percentage change, House price at risk= change in house prices at P percentile one year ahead.

25. While most other advanced countries have not adopted measures discriminating between residents and non-residents to deal with housing issues, some have been actively considering them. One example is the United Kingdom, which in early 2019 launched a consultation on a "Stamp Duty Land Tax: Non-UK Resident Surcharge." While recognizing the need to increase supply to improve affordability in the long run, the government felt that something needed to be done in the near term to help more people into home ownership. As part of the motivation for the measure, the government claimed that purchases of property by non-UK residents were pushing up property prices for residents. Canadian authorities reported in interviews that Canada is investigating the adoption of a nationwide policy on the taxation of vacant property, with the treatment possibly depending on the residency of the owner and whether the owner has taxable Canadian income.

26. Generally, as documented in the IMF's annual reports on Exchange Arrangements and Exchange Restrictions (AREAER), restrictions on cross-border capital flows into real estate have been on an easing trend with the notable exception of ACHNS (Box 2). Nevertheless, other advanced economies and many emerging markets have long-standing policies in place discriminating between residents and non-residents with respect to real estate purchases. Ong (2013) notes that in Australia and across Asia including China, India, Indonesia, Vietnam, Hong Kong SAR, and Thailand, governments have maintained for many years restrictions on overseas buyers, making it costly for foreigners to own property, limiting access to certain market segments, or reducing liquidity by requiring to sell only to citizens. Switzerland applies quotas on secondary residences for foreign buyers and largely prohibits foreign investment in real estate for financial objectives. Poland has stringent residency requirements for buyers from non-members of the European Economic Area.

III. IMF ENGAGEMENT

A. Policy Framework for IMF Advice

27. The IMF's recent advice on the issue of capital flows affecting the housing sector has been guided by the IV (IMF, 2012; 2013a), as well as by its framework for macroprudential policy (IMF, 2013b; 2014; Adrian, 2018). The staff applies these frameworks as part of a generally broad assessment of housing issues covering the role of the housing sector in economic and financial stability and more recently also with respect to distribution and affordability issues. In the IMF's approach, financial imbalances should be addressed primarily by macroprudential policies , including when capital inflows drive those imbalances. Macroprudential measures that differentiate on the basis of residency status are—under the IV—also considered CFMs.

28. The IV lays out specific criteria for the IMF to be able to support the use of CFMs. They should not be used pre-emptively but may be useful to deal with an inflow surge, for example, where the room for adjusting macroeconomic policies is limited. CFMs should be used as a substitute for warranted adjustment of other policies. The IV further recommends that measures related to capital inflows be targeted, temporary, transparent, and non-discriminatory with

regard to residency, with the least discriminatory effective measure preferred. When CFMs are put in place for an inflow surge, the IV indicates that they need to be reviewed continuously and removed as soon as possible in a properly paced and sequenced manner (G20, 2018).

Box 2. Evolution of Controls on Real Estate Transactions, 2012–18

Many countries continue to apply controls on capital inflows and outflows related to real estate transactions as documented in the IMF's Annual Reports on Exchange Arrangements and Exchange Restrictions (AREAER). Overall, the annual reports show that there was a tendency to ease restrictions on capital flows related to real estate transactions during the period 2012–18, and slightly more so for resident outflow than non-resident inflow restrictions. In addition, the following observations are relevant:

- A limited group of economies with comparatively less overall open capital accounts continued to modify their controls on non-resident inflows and resident outflows of capital related to real estate transactions. For example, India imposed restrictions on purchases of real estate by Hong Kong SAR citizens in 2014 and raised the limit on overseas purchases by residents in 2015; Tajikistan tightened outflow regulations in 2016.
- Crises played a key role in the use of general capital controls on resident and in some cases non-resident outflows, often encompassing real estate. The advent of a foreign exchange crisis or very large pressures on the foreign exchange rate, for either economic or geopolitical reasons, led to the tightening of capital controls on outflows including on real estate purchases abroad by residents (e.g., in Argentina, Cyprus, Greece, Iceland, Iraq, and Ukraine). Subsequently as crises waned, a notable easing of outflow restrictions restored the pre-crisis normal.
- The adoption of the Solvency II supervisory regime for the insurance sector by the European Union (EU) led to a substantial easing of capital flow restrictions related to real estate, increasing capital flows into this sector beyond the EU. Investment in developed non-residential commercial real estate was also an area of liberalization in a number of countries.
- A number of economies tightened or introduced restrictions on capital inflows into residential real estate to reduce the pressure on real estate prices. As well as ACHNS, they included India and Malaysia.

29. The IMF distinguishes between pure CFMs and CFMs that are simultaneously aimed at achieving financial stability objectives and are thus also macroprudential measures (i.e., CFMs/MPMs). For a measure to be labeled an CFM/MPM, the measure must be assessed to aim at reducing systemic risks to the financial sector, otherwise the measure would be judged a CFM only. According to interviews, the IMF staff has tended to be generous in applying the MPM designation to measures affecting the housing sector, acknowledging the importance of the housing sector for financial stability in advanced economies. Stamp duties and other fiscal measures can be considered MPMs, but the IMF staff has promoted instead "pure" MPMs that affect leverage and the adoption of credit risk rather than measures that affect market functioning, transactions, and pricing (IMF, 2017a). The IMF has never advocated the adoption of CFMs or CFMs/MPMs in the context of housing policies.

30. In interviews, IMF staff members reviewing the classification of measures noted tensions between the IV and MPM frameworks. Preemptive application is a well-established principle of a sound macroprudential policy framework. To encourage resilience, a framework should set appropriate incentives for prudent behavior consistent with financial stability. The tools are expected to stay in place permanently, though their parameters can be modified in line with

shifting judgments on financial stability risk based on monitoring of the credit cycle, balance sheets, and other indicators. However, such an approach conflicts with the guidance in the IV that CFMs (and thus CFMs/MPMs) should not be used in a preemptive or lasting manner: to justify their use requires a surge in capital inflows and the IV recommends that the measures be phased out promptly when the surge abates and/or the related financial stability risks wane. According to interviews, this approach limiting the use of CFMs/MPMs is not fully supported within the IMF staff, some of whose members would prefer to allow greater latitude to support the application of CFMs/MPMs on a preemptive and lasting basis.[6] They argue that capital inflow surges may be an incipient threat that could be discouraged by the mere existence of CFMs/MPMs, even if no capital flows to which they would apply actually materialize. Frictions are also perceived regarding the multilateral surveillance framework, as capital flow surges could be driven by source country factors, with the most effective response requiring a policy adjustment in source countries.

B. Application of the Framework to Specific Cases

31. The IMF began to pay particular attention to capital flow measures in the housing sector around 2017, even though the IV had been in place since 2012 and several CFMs and CFMs/MPMs had been adopted in the sector well before 2017. The Fund's 2016 Review of Experience with the IV (IMF, 2016) appears to have triggered this heightened focus; Canada's adoption of measures discriminating against non-residents in 2016 may also have contributed. This increased attention was particularly notable for the ACHNS economies, all of which had deployed housing sector measures affecting capital flows since 2012.[7]

32. In applying the IV in the ACHNS economies, the IMF staff followed the IV and macroprudential frameworks very closely in classifying measures that discriminate between residents and non-residents in the housing market as CFMs and assessing whether they were justifiable within the IV framework and whether they were also MPMs. This led it to the following conclusions:

- *Australia*: CFMs, consistent with the IV. The residency-differentiated stamp duties adopted by some of Australia's regional authorities responded to a capital inflow surge

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[6] Some practitioners have pressed the case for preemptive macroprudential action and permanently available tools. Beyond "pure" MPMs, fiscal tools like stamp duties are seen as useful when credit-based macroprudential policies turn out to be less effective (Upper, 2017). Fell (2019) presents a macroprudential policy framework in which permanent discrimination between residents and non-residents is helpful from a financial stability perspective. The framework is based on the notion that stamp duties tend to affect prices more than credit for housing while non-resident buyers do not contribute to risk from domestic leverage. Hence taxing non-residents more could lead to lower domestic leverage (through lower house prices) and thus improve financial stability, while also taxing residents could lead them to increase leverage as they need to cover a larger tax payment.

[7] Under the IV, the IMF staff has not been required to apply the framework to measures that were already in place before the IV was approved in 2012. Although it may choose to do so, in practice the IMF staff has not raised concerns about pre-existing housing-related restrictions on capital inflows.

and were judged not to have substituted for other policies (IMF, 2018g). The IMF staff report recognized the comprehensive policy response of the authorities to housing market imbalances. It viewed the CFMs as a complement to measures designed to address systemic risk associated with the housing sector and as an interim tool for use until supply measures became effective. The IMF urged the authorities to reconsider the CFMs and replace them with more effective and non-discriminatory policies as soon as feasible (IMF, 2018g; 2019b).

- *Canada*: CFMs, inconsistent with the IV. The additional property transfer tax and non-resident speculation tax adopted by selected provinces were assessed as not designed to deal with financial stability risks and there was no evidence of a capital inflow surge (IMF, 2017b). The IMF has consistently called for Canada's immediate removal of these taxes and recommended alternative broader-based measures (including a speculation and vacancy tax), recognizing the validity of the authorities' concerns about affordability (IMF, 2017b; 2018d; 2019c).

- *Hong Kong SAR*: CFM/MPM, consistent with the IV. The higher stamp duty on non-residents was designed to stem a surge in capital flows, was not used as a substitute for appropriate macroeconomic adjustment and was imposed because macroprudential measures would not be effective to deal with systemic risks arising from non-resident investment in the housing sector (IMF, 2018a). The IMF staff reports have consistently called for phasing out the measure once systemic risk dissipates (IMF, 2018a; 2019d).

- *New Zealand*: CFM, inconsistent with the IV. The ban on non-resident investment in the housing sector implemented in October 2018 was seen as unjustified. There was no evidence of a surge in capital inflows or a link between house prices and activity by foreigners, while macroeconomic and macroprudential policy settings were broadly appropriate (IMF, 2018f). In addition, the measure was approved by Parliament and thus unlikely to be temporary. The IMF provided this assessment before New Zealand adopted the measure, noting that it was unlikely to improve housing affordability.[8] After its adoption, the IMF called for its removal (IMF, 2019g).

- *Singapore*: CFMs/MPMs, consistent with the IV (IMF, 2017c). The IMF supported the continued use of the additional stamp duty on non-residents, first introduced in 2011 and increased in 2013 and 2018, in the face of systemic risks, comprehensive property market cooling measures in place, and an evident link between non-resident demand and property price developments. However, referring to the IV, the IMF staff has consistently recommended eliminating the residency-based differentiation by unifying

[8] The IMF took the same approach in the context of a U.K. proposal for a non-resident stamp duty, indicating that such a measure would be considered a CFM, with its use not in line with the IV. That measure has not yet been adopted.

rates to the lower rates charged to residents and then phasing out the measures once systemic risk from the housing market dissipates (IMF, 2017c; 2018c; 2019f).

33. Interviews revealed that these conclusions were not shared by all IMF staff members, with resistance to the designation of some measures as capital flow measures. In the example of Canada, the Fund's Western Hemisphere Department disagreed with this designation on the grounds that there was no intent to curb capital inflows, no balance of payments problem or capital inflow surge, and no pressure on the exchange rate. Moreover, the effect of the tax on Canada's aggregate capital flows was seen as likely to be minimal. The measure did not substitute for macroeconomic adjustment and was efficient in targeting the cause of the problem, more so than potential macroprudential measures would have been. The Fiscal Affairs Department observed that most countries' tax systems, almost by definition, discriminated between residents and non-residents, which could lead to an abundance of CFM findings. Other staff members felt that the measure was a legitimate MPM in response to pressures facing the housing sector. In the end, a relatively strict reading of the IV prevailed, centered on the key feature that the measure explicitly discriminated between residents and non-residents and was therefore a CFM, and was not explicitly put in place for financial stability reasons and therefore not a CFM/MPM. IMF staff members working on other economies (e.g., Hong Kong SAR) reported similar discussions, but given that the Fund deemed the measures there to be justified, there was less resistance to their being classified as CFMs/MPMs.

34. Source country issues were not raised explicitly by the IMF staff.[9] Interviews revealed that the staff accepted that in Australia, Canada, and especially Singapore, in addition to the global search for yield, specific source country factors reflecting the source country investors' desire for safe investments abroad were driving capital into real estate. The staff observed that non-resident capital inflows and price developments in housing in Hong Kong SAR, and to some extent Singapore, seemed to follow capital outflows from China, citing in particular the outflow surge around 2012, which reversed after 2015 China reportedly tightened its limits on residential capital outflows (see Rebucci and Zhou, 2019).

C. Authorities' Views

35. The authorities of most ACHNS economies expressed surprise at the IMF's sudden emphasis in 2017 on their implementation of measures that were judged to be CFMs or CFMs/MPMs and found the continuing references to these issues unhelpful. In Hong Kong SAR and Singapore, officials felt that implementation of measures already underway that were part of the standard toolkit were suddenly designated as capital flow management measures by the IMF. Hong Kong SAR authorities further pointed out that their measures were not seen as running afoul of the Basic Law, which enshrined freedom of capital flows. By the time measures were contemplated in New Zealand in

[9] Even though a key element of the IV emphasizes that source countries should better internalize the spillovers of their policy actions (IMF, 2016).

2018, there was forewarning of the likely IMF label but the authorities decided to move ahead regardless.

36. Perhaps in response to the authorities' reaction and arguments (see below), the IMF staff reports after 2017 paid less attention to CFM labeling and focused more on the effectiveness of the policies to achieve their stated intent. Indeed, Article IV staff reports in 2018 and 2019 discussed the CFM and CFMs/MPMs in the context of broader housing policies, often relegating the assessment of measures under the IV to a footnote (as for Australia, IMF, 2019b; and Canada, IMF, 2018d and 2019c). A notable exception seemed to be Hong Kong SAR, for which the staff reports and even concluding statements of the IMF mission through 2019 continued to contain detailed analysis related to the IV, leading to questions about the IMF's evenhandedness. The authorities reported that the IMF's insistence in repeating its recommendations, especially in cases where countries were planning to keep the measures in place, did not constitute helpful advice on housing issues. Other observers echoed this view, suggesting that the IMF ought to focus first on whether the measures were effective to achieve housing objectives rather than on whether they affected capital flows or discriminated between residents and non-residents.

37. Officials felt that the IMF's application of the IV did not sufficiently take into account the objectives of the measures in these economies. During Article IV Board discussions for some of these economies, authorities and Executive Directors argued that designating as CFMs, as a general rule, all measures that discriminated between residents and non-residents was at odds with the key plank of the IV that intent mattered (IMF, 2018h; 2019e). In interviews, some authorities felt that the application of the IV to their housing-related measures was not consistent with the IV's objective, which they believed was to guard against restrictions that prevented balance of payments adjustment. Some authorities strongly disputed the IMF's assessment that their measure was a CFM, emphasizing that the intent of the measures was not to restrict capital flows but to keep the housing market in balance and promote affordability by directly tackling a source of imbalance, in an environment in which there were no balance of payments problems. In addition, the authorities from Australia and Canada further noted that measures had been adopted by local and regional authorities and were not applicable economy-wide.[10] They noted that their measures were price-based and calibrated to impose only a small additional cost on foreign investors. At the IMF Board meeting, some Executive Directors felt that Canada's measures were justified in view of the stated intent to address housing affordability concerns (IMF, 2018h). Other observers suggested that measures such as stamp duties and transaction taxes were inappropriate to solve housing problems regardless of whether they affected capital flows, as they did little to address the underlying supply-demand imbalance.

[10] The OECD Code of Liberalization of Capital Movements allows countries to "reserve" capital account restrictions, including those affecting purchases of real estate and measures that may be taken at the regional level.

38. In justifying the discriminatory aspect of their measures between residents and non-residents, the authorities concerned offered a range of reasons:

- Comprehensive packages of housing measures to manage supply and demand as well as financial stability risks were already in place but were not sufficiently effective to deal with the impact of surges in non-resident investments in their real estate markets (especially in Hong Kong SAR and Singapore). Thus, measures discriminating against non-resident buyers tackled a specific source of imbalance in an effective manner (a point also argued by several Executive Directors during Board meetings). Using more macroeconomic or macroprudential measures to deal with these foreign inflows would have created additional distortions and would have been less effective in discouraging foreign purchases not reliant on domestic bank financing (Australia, IMF, 2018g). This point is echoed in a recent BIS report on drivers of property price dynamics which notes that "from a policy perspective, their growing importance [i.e., of foreign investors] presents challenges since foreign demand is less sensitive to macroprudential measures that affect the supply of domestic credit for property investments" (BIS, 2020).

- Foreigners were not on a level playing field with domestic purchasers, justifying compensatory taxation. First, foreigners did not pay local income taxes and therefore did not contribute to funding infrastructure needs related to housing. Second, they might not effectively reside in the houses they acquired, nor rent them out, thus reducing supply for local residents. Third, they might be motivated by speculation and factors unrelated to the domestic economy, contributing to price increases and adding potential volatility. And fourth, they might focus exclusively on houses in certain segments or locations where a supply response could be constrained, thus limiting the traditional benefits from open capital accounts.

- Source country policy adjustment may have been warranted. The Monetary Authority of Singapore (MAS) noted that in the early stage of Singapore's 2009–11 property market cycle, other jurisdictions tightened their macroprudential policies relating to housing in the aftermath of the GFC and thus triggered stepped-up property purchases by foreigners to Singapore (MAS, 2017). In interviews, some country authorities urged the IMF to produce more effective analysis of the impact of source country policies with a view to identifying recommendations to be addressed to these countries.

- Some officials also offered political economy arguments for use of housing-related CFMs. In the case of New Zealand, they argued that declining housing affordability and greater inequality had lowered public support for globalization and immigration in the country. Not restricting access of foreigners to sensitive assets like residential land would have jeopardized support for international trade agreements (IMF, 2018f). In the case of British Columbia (Canada), the authorities felt that it would be politically expedient to apply additional taxes to foreigners in a quest to address housing affordability, as supply-side measures required the possibly lengthy involvement of many stakeholders with considerable uncertainty about its outcome. Other arguments revolved around the observation that housing is socially very sensitive and more than just a financial asset.

39. While acknowledging the legitimacy of some of these points, the IMF staff pushed back on many of them, with some Executive Directors supporting the staff's points. The 2018 Article IV report for Australia (IMF, 2018g) provides a good example, with the IMF staff concluding that: "the case for applying policies specifically aimed at foreign buyers is not clear-cut." The IMF staff acknowledged that supply constraints, social considerations, constraints applying to domestic but not foreign demand, and macro-financial externalities might justify intervention. However, it noted that many of the same issues would apply to domestic investors, thus raising the question of whether separate measures for foreigners were needed. In the context of Article IV Executive Board discussions, some directors encouraged the Australian authorities to consider non-discriminatory measures, for example with respect to vacant property, and suggested that a shift to more efficient property taxation, based on value rather than transactions, would be helpful (IMF, 2019b; 2018g).

40. Interviews with authorities suggest that the IMF staff could have been more helpful by providing more specific recommendations for alternative policies and bringing to bear more cross-country information. They also felt that political economy considerations and institutional constraints arising from division of responsibilities among various levels of government (national versus regional and local) and different institutions (financial stability versus other) could have been better incorporated in IMF advice. In this context, a regional authority explained in an interview that it had considered many alternatives but found that, taking account of legal constraints, efficiency, and administrative feasibility, differentiated stamp duties had been found to be the superior option. Industry observers noted that more data would have been useful to assess the sources of problems in the housing market and that the IMF would need to pay more attention to supply-side issues, requiring different expertise, including in the realm of urban economics. In interviews, the IMF staff acknowledged that in most ACHNS economies, data limitations prevented a thorough analysis of developments and policy options.

41. Interviews with authorities as well as IMF staff members suggested that an extraordinary amount of time was spent on CFM labeling during Article IV consultations. In one case, this resulted when the Article IV staff report introduced an application of the IV to a particular measure that had not been discussed during the mission. The IMF staff noted that it took considerable resources to explain the application of the IV and the staff's approach to determining whether a measure was a CFM, CFM/MPM, or only an MPM. Similarly, Executive Board discussions of Article IV consultations in 2017–18 in countries where such measures had been identified devoted much of their time (more than half in some cases) to clarifying these issues. The authorities observed that focusing on how to characterize a given measure (CFM, CFM/MPM, or MPM) took much time away from a more substantive discussion on how to maintain a stable domestic housing market in the presence of volatile capital flows. In interviews, some authorities called the labeling a distraction or an irritant. Nonetheless, application of the IV required an ongoing review of CFMs and a reiteration of the ensuing recommendations as long

as the measures were in place, as reflected in staff reports. The IMF staff and authorities reported that this had resulted in a box-ticking exercise, with both staff and authorities reiterating existing policy positions and avoiding substantive discussion of the capital flow management aspects of the measures.

42. Some authorities expressed concern that the designation of their measures as capital flow management measures would tarnish their reputation as very open economies, even if the measures were assessed to be in line with the IV. This was especially the case for economies that were also international financial centers, where strong objections to the CFM labeling were raised. Some ACHNS authorities noted that their housing sector CFMs had had only a marginal effect on aggregate capital flows and no material impact on the openness of their economies (IMF, 2017b; 2018f)—a view echoed by some Executive Directors during the related Board discussions. Other observers stated, however, that the IMF's application of the IV did not seem to materially affect foreign investors' behavior and that concerns about reputations appeared to be overstated.

D. IMF Analytical and Empirical Work

43. The IMF has conducted a large amount of analytical and empirical work on housing-related issues, but research on how CFMs and CFMs/MPMs affect the housing market has been more limited until recently. Alam and others (2019) reviewed the progress in assessing the effectiveness of macroprudential policies on housing markets, noting that a rigorous quantification of their effects remained incomplete. The effect of CFMs/MPMs, most of which are differential tax measures, appeared to be significant on house prices in advanced economies, but not on household credit growth. The same study suggested that this may be because these measures are designed to curb housing demand that does not rely on domestic credit (such as by foreigners). The impact of measures discriminating between residents and non-residents was not tested separately. Zang and Zoli (2014) reported that CFMs had been somewhat effective in reducing house prices in advanced Asian economies. However, their definition of CFMs encompasses currency-based measures, including for example foreign currency open position limits and limits in foreign exchange lending—which are present in most ACHNS economies and may be considered pure MPMs under the IV and macroprudential frameworks.

44. Recent IMF work on house prices at risk, using cross-country data, found that capital inflows seem to increase downside risks to house prices in advanced economies, thereby potentially justifying CFMs in specific cases (IMF, 2019h; Alter, Dokko, and Seneviratne, 2018). The April 2019 *Global Financial Stability Report* (IMF, 2019h) reiterates the point made in the IMF policy paper on "Increasing Resilience to Large and Volatile Capital Flows" (IMF, 2017a) that CFMs can support macroeconomic policy adjustment and financial stability during capital inflow surges when other policy options are limited, or timing is crucial. Detailed city-level evidence suggests that the link between capital flows and house prices at risk varies with the type of capital flows and across countries. However, the empirical analysis does not find a significant link

between the indicator of CFMs and house prices at risk—a finding that it attributes to the paucity of observations on use of such restrictions.

45. At the economy-wide level, recent IMF work on CFMs and housing markets has been done mainly in the context of Canada and Hong Kong SAR. In the former, the IMF staff used a calibrated general equilibrium model to demonstrate that macroprudential policies centered purely on the financial system are preferable to tax-based policies, and that targeting property transfer taxes at a broader set of home owners is a more effective way to achieve price objectives than aiming them solely at non-resident buyers (IMF, 2018e). In the context of Hong Kong SAR, the IMF staff found that a broad-based ad valorem stamp duty was more effective in reducing house prices than was a stamp duty that differentiated between residents and non-residents (which was judged to be a CFM/MPM by the IMF staff) (IMF, 2018b). The latter seems to have had most impact on the luxury market, though with a small effect on other market segments as well. For Singapore, the IMF staff relied on the model of the MAS, which suggested that house prices would have been 10 percent higher without Singapore's higher stamp duties on non-resident purchases, though the staff noted that estimates are uncertain because other factors, such as the slowdown in population growth, could have accounted for some of this effect as well (IMF, 2019a).

IV. ASSESSMENT

46. The experience with the application of the IV to housing-related issues suggests that the policy has constrained the Fund's ability to provide effective advice on both housing policies and financial stability and raises questions about the relevance of assessing housing-related policies largely from a capital account perspective. There appears to be merit in addressing the following issues:

- *Objective of the IV*: Consideration should be given to allowing the IMF staff to give greater weight to countries' broader social and political goals in the application of the IV, in the case of housing covering affordability and social values. None of the capital flow management measures adopted or tightened since 2012 in ACHNS was focused on limiting capital flows as a primary objective. In many cases, improving the affordability of housing was the main objective—an objective that was not envisaged by the IV framework.

- *Preemptive use of CFMs/MPMs and CFMs*: With CFMs at times assessed to be macroprudential measures with a financial stability purpose, the IMF should consider whether to be more open to supporting their preemptive use, which would bring the IV and macroprudential frameworks into closer alignment in this area. In addition, consideration should be given to allowing preemptive use of CFMs in the pursuit of objectives other than financial stability, such as having affordability.[11]

- *Proportionality and evenhandedness*: Greater care should be taken to avoid time-consuming assessments of CFMs unless they truly have a material impact on capital flows and housing and macroeconomic developments. Focusing on capital account measures that may be minor from a macroeconomic perspective and not macro-critical seems to be a poor use of scarce time and resources in the context of Article IV consultations. In many cases it would be more relevant to assess policies affecting the housing market primarily from the perspective of whether they effectively address housing-related problems, rather than whether they are affecting capital flows or discriminating between residents and non-residents. In addition, the focus on changes in CFMs since 2012, largely to the exclusion of pre-existing CFMs, may cause staff to ignore policies that are much more consequential from a macroeconomic or capital flow point of view, and raises questions of evenhandedness.[12] Both concerns may erode the usefulness of (and confidence in) the IV framework.

- *Effective alternatives*: When recommending the elimination or phasing out of CFMs or CFMs/MPMs, the IMF should pay more attention to identifying effective, efficient, and country-relevant alternatives. In this context, it would be useful for the staff to identify preferable combinations of MPMs, tax measures (CFMs/MPMs or CFMs), and supply-side policies that could be used to achieve housing market objectives while minimizing distortions. The fact that housing is not just a financial asset but also a consumption good raises some important issues: what set of policies ensures that housing maintains this feature without giving up the benefits that may arise from foreign investment in the sector? How does one deal with the political economy of intra- and intergenerational distributional consequences of developments in house prices when affected by non-resident activity?

- *Evidence base*: The IMF should continue to assess the evidence of the impact of CFMs/MPMs and CFMs on housing markets and press for countries to broaden data on foreign ownership and capital flows in and out of the housing sector, so as to inform its advice and assist its members to engage in evidence-based policymaking. It should also present impact analysis of its alternative policy recommendations that would allow the elimination of discriminatory measures.

- *Demonstrating consistency and transparency of assessment*: While the IMF staff has closely followed the IV framework in its applications to measures affecting the housing sector,

[11] In the context of housing this might apply to cases in which supply-side measures designed to boost affordability require time to take effect while incipient foreign demand pressure is present.

[12] At present, the practice is to apply the IV only to CFMs introduced to previously open portions of the capital account, and not to scrutinize or question CFMs existing when the IV was adopted in 2012 (IMF, 2016).

demonstrating the consistency of different labeling of seemingly similar measures (almost always stamp duties) to a broader audience may require some outreach. The recent shift away from fully explicit judgments has exacerbated this transparency issue.

- *Multilateral consistency and source country issues*: To promote evenhandedness, the IMF should pay more attention to source country policies that affect capital flows into the housing sector by addressing policy recommendations in a balanced manner across source and destination countries, as pointed out in the IEO's evaluation of "IMF Analysis of Housing Markets" (Rebucci and Zhou, 2019).

- *Dedicated analysis of housing issues*: With housing issues highly macro-relevant and increasingly affected by global developments, the IMF should consider setting up a dedicated unit to pool information on housing sector developments and related policies and help inform and ensure the consistency of its bilateral policy advice, including on the use of CFMs/MPMs or CFMs in this area. This unit would also be a good location for expertise on supply-side policies, and the related role of regional and local governments.

ANNEX I. SUMMARY OF ACHNS HOUSING-RELATED MEASURES

	Australia	**Canada**	**Hong Kong SAR**	**New Zealand**	**Singapore**
Housing price developments; assessment by authorities/staff	After an initial decline, house prices have trended upward over the past decade and appear to be overvalued. Imbalances in the housing market reflect supply and infrastructure constraints against a steady rise in demand due to population growth, especially in large cities, and low interest rates. Foreign interest in residential housing surged during 2012–16, contributing to upward price pressures. Staff and the authorities agreed about concerns that rapid house price growth could add to medium-term macro financial vulnerabilities. This assessment is shared between authorities and IMF.	Following a period of relative stability after the global financial crisis, house prices staged a rebound from 2014 to 2017, before correcting and becoming more stable. House price growth was very uneven across regions/cities. Vancouver and Toronto showed very rapid growth, but prices fell in Alberta and remained broadly stable in Calgary and Regina. On average, house prices are assessed to be significantly overvalued. Housing affordability has become a major concern. This assessment is broadly shared between authorities and IMF.	Since 2012, house prices have been increasing rapidly, despite periodic softening. Imbalances between supply and demand appear to be structural, leaving property prices well above fundamentals and housing among the least affordable in the world. Activity by non-residents appears to have a significant correlation with house price developments. This assessment is fully shared between authorities and IMF.	House prices have been following a strong rising trend, especially in large cities, against a background of undersupply and housing shortages leading to worsening affordability. Idiosyncratic factors such as earthquakes also played a role. Foreigners do not appear to be major players in the housing market with no broad-based interest from non-residents. This assessment is broadly shared between authorities and the IMF except in respect of the role of foreign buyers where the authorities are concerned about the impact of demand.	House prices have fluctuated over the past decade. Following a surge in house prices after the global financial crisis amid speculative activity and strong interest from foreigners (Singapore has a regional safe haven status), housing prices stabilized by 2013 and then declined before stabilizing again. However, in 2018, prices rose again and are since assessed to have remained somewhat overvalued. Housing affordability is a concern addressed primarily through the public sector provision of housing (80 percent of Singaporeans are in public housing) and through efforts to ensure house values stay in line with fundamentals. This assessment is broadly shared between authorities and IMF.
Policies to deal with housing issues	Macroprudential policies are the main tool to address financial stability concerns. Supply side and tax measures are geared to raise affordability. Tax measures targeting non-residents were adopted by regional authorities with the view to raising affordability and tax revenue.	The authorities rely primarily on economywide macroprudential policies, but some policies are devolved to the regional level and not formally coordinated.	The authorities pursue an integrated approach to housing: boosting supply to meet needs; tightening macroprudential measures to limit stability risks; and imposing targeted fiscal-based measures to mitigate speculative activity and external demand.	The authorities have launched supply measures and tax reforms to deal with affordability while continuing to implement macroprudential policies related to mortgage lending to ensure financial stability.	The authorities take a fully integrated approach to housing prices using supply- and demand-based measures, in the latter case both structural and cyclical measures.
-Supply	Authorities generally count on private construction response to prices, with local regulations and infrastructure important factors.	Regional policy: expansion of supply to foster affordability but progress slower than anticipated.	Supply is being expanded as much as feasible.	Supply expansion measures are in place (e.g., Kiwi Build program, Urban Growth Agenda).	The authorities adjust land availability and release for private housing to help achieve property price stability. Plans are updated regularly; supply was raised during 2010–13 to help stabilize prices.

	Australia	Canada	Hong Kong SAR	New Zealand	Singapore
-Fiscal policy	Fiscal measures (stamp duty) are in place. Tax regime favors investing in real estate, including secondary homes. There is support for first-time home buyers.	Some fiscal based measures (transfer tax, speculation tax) are in place. First-time Home Buyer Tax Credit is in place since 2009 and First-time Home Buyer Incentive since 2019. Capital gains are tax exempt.	Fiscal based measures are in place (ad valorem duty, buyer's stamp duty, special stamp duty). Mortgage interest is deductible on primary residence (when income tax paid).	Capital gains taxes modified to reduce speculation; measures taken to reduce negative gearing on rental properties. Mortgage interest rate deductibility for investment properties only.	Fiscal based macroprudential tools are in place (see below). Mortgage interest is deductible for properties that generate income.
-Monetary policy	Monetary policy is conducted within an inflation targeting framework, thus not responding directly to house price developments.	Monetary policy is conducted within an inflation targeting framework and therefore does not respond directly to house prices. It is seen as a last resort to deal with financial stability risks (including from housing).	The currency board means that monetary policy does not react to house price developments.	Monetary policy is conducted in an inflation targeting framework, thus not responding directly to house price developments.	With monetary policy primarily conducted through managing the pace of exchange rate movement, there is no direct link to house price developments.
-Macroprudential (MPM)	Intensive supervision of mortgage lending is the primary tool to ensure financial stability in housing markets. Focus is on ensuring that mortgage lenders maintain strong balance sheets.	Maximum amortization, LTV, and DSR; minimum credit score, minimum down payment, mortgage insurance premiums and various other regulations are in place and were frequently tightened during the run-up of house prices.	LTVs/DSR/SDs/ mortgage underwriting standards were almost continuously tightened throughout the past decade. Ad valorem stamp duty (15 percent) with lower rate for permanent resident first property in place since 2010; Special stamp duty for resale within 24 months in place since November 2010 (36 since 2012), with differentiated rates of which highest was 15 percent, raised to 20 percent in 2012.	An intensive supervisory approach geared at resilient bank capital and proactive use of macroprudential tools, mainly exposure limits to high loan to value ratios, are in place.	The macroprudential toolkit is comprehensive and has been actively used to influence house price developments. Both fiscal- and credit-based tools are in place. Some measures are structural, and adjusted only infrequently: total debt service ratio framework, maximum loan tenure, type of loan (no interest only) minimum cash down payment, bank exposure limits to property sector. Other measures are cyclical and often used in combination to address housing price developments: loan-to-value (LTV) limits and stamp duties. A sharp tightening of MPMs took place in late 2009 using LTVs, subsequently supported by stamp duties. In 2013, a total debt service ratio (TDSR) framework was adopted. With the market cooling, the seller's stamp duty (SSD) and the required holding period were reduced in 2017. In 2018, LTV ratios were tightened and the

	Australia	Canada	Hong Kong SAR	New Zealand	Singapore
					additional buyer's stamp duty (ABSD) increased (see next section).
-CFM/MPM	None	None	Buyer's stamp duty of 15 percent since October 2012 targeting some types of demand including foreign investors. Stamp duty/Ad Valorem Non-Residential Stamp Duty levied at a higher rate (2x) on non-residents.	None	An ABSD with a higher value for non-residents has been in place since 2011. In 2012 measures targeting non-residents were tightened and in 2018 the ABSD was raised by 5 percentage points except for Singaporeans and permanent resident's first property; by 10 points for non-individuals; and by 15 percent for housing developers.
-CFM	Stamp duties on non-resident purchases in Victoria in 2015, NSW and Queensland in 2016; ACT, South Australia and Tasmania in 2018, and Western Australia in 2019.	Additional property transfer tax on non-resident buyers of 15 percent in British Columbia (Vancouver) from August 2016 onward, raised to 20 percent in February 18. Non-resident Speculation Tax of 15 percent for Ontario from April 2017 onward. Speculation/vacancy tax in British Columbia at higher rate for foreigners from 2019 onward (not assessed by IMF yet).	None	Prohibition on the acquisition of existing residential real estate by non-residents (with some exceptions if tax residency will be established, or if supply increases).	None.
Differences between IMF recommendation s and authorities' views/policies	CFM: No difference except for IMF call for phasing out discrimination between residents and non-residents. Authorities argued that measures are motivated by affordability concerns, an issue not anticipated by the IV. Tax reform: IMF emphasized need for broader tax reform to help cool housing market but authorities resisted, citing risks	CFM: IMF called for elimination of measures because of their discriminatory nature, and their replacement with broad-based measures. The authorities objected to this classification, arguing that the measures did not target capital flows, but focused on maintaining housing affordability.	CFM/MPM: No difference but authorities not explicitly on board with IMF call for medium-term phasing out of existing CFMs/MPMs.	CFM: IMF calls for removing the ban on purchases by non-residents as there is insufficient evidence of a link between house prices and foreign activity and measures are unlikely to be temporary (voted by Parliament). Authorities disagreed with the assessment that the measure was a CFM. They called for the IMF to assess the measure in a holistic	CFM/MPM: starting in 2017, and continuing thereafter, IMF advocated the removal of the differentiation of the ABSD between residents and non-residents (in 2017 by lowering the rate for non-residents). The authorities objected on the grounds that it would rekindle speculative inflows. In 2018 and 2019, the IMF recommended phasing out the ABSD once systemic risk from the housing market dissipated. There was no

	Australia	Canada	Hong Kong SAR	New Zealand	Singapore
	of destabilization of housing market and political sensitivities.	MPM: IMF suggested more use of other MPMs (LTV/DTI) including possible regional MPMs. Suggestion was rejected by the authorities as either unnecessary, as existing measures seemed to be working, or running against federal/local mandate separation. Fiscal: IMF 2019 cautioned about first home-buyer incentive. Authorities responded that this is small.		manner, taking into account social, economic, and political context, and recognize affordability and inequality concerns. MPM: IMF calls for broadening of the macroprudential toolkit (in particular debt or debt service to income limits), which the authorities would keep under review. Fiscal: IMF recommends tax reform related to housing but authorities remain unconvinced.	explicit rejection nor agreement with this suggestion.
Authorities'/observers' views of IMF assessment	The authorities considered the IMF attaching a CFM label to their housing policies as unhelpful. Measures were not designed to curb capital flows. Measures were not under federal government control. The IMF did not add much value on housing policies in general.	Observers and authorities stated that the IMF did not provide significant value added regarding housing issues in Canada. The IMF's labeling of housing measures as capital flow restrictions was seen as counterproductive.	The IMF's labeling of the authorities' measures as capital account restrictions was strongly resisted by the authorities, pointing to the fact that the capital account is one of the most open in the world.	The IMF's labeling of the measures as CFMs was strongly resisted by the authorities, noting that they would not materially impact capital flows, the balance of payments, or the openness of the economy.	Observers and authorities noted that the IMF did not provide significant value added regarding housing issues in Singapore. The IMF's labeling of Singapore's housing measures as capital flow restrictions was seen as off the mark given Singapore's capital account openness.
Issue 1: Application of IV: Objective(s) and instruments	The authorities targeted affordability, revenue, and financial stability. All types of housing-related policies were deployed including capital flow management. Capital flows not targeted (only "discouraged").	Local authorities targeted affordability in some cities/regions. National policies not applicable. Capital flows not targeted.	The authorities targeted financial stability and affordability. All housing-related policies were deployed including capital flow management. Capital flows were not targeted.	The authorities' target was affordability and other political reasons (maintain support for open trade). Capital flows not targeted.	The authorities targeted financial stability and affordability. All housing-related policies were deployed including capital flow management. Capital flows/account not targeted.
Issue 2: Clarity of IV assessment	CFM/MPM assessment noted discriminatory nature but argued that context of capital inflow surge made it justifiable. Passed the "macro-criticality" test	CFM assessment was based on whether the measure was discriminatory between residents and non-residents. CFM/MPM designation	CFM/MPM assessed as appropriate because it was imposed to stem surge in capital inflow into housing; not used to substitute for the appropriate	Measures assessed as not geared to address financial stability, and not likely to be temporary. Additionally, IMF noted that measure would	Issue deemed macro-relevant and systemic and capital inflow surge noted (though the latter in a footnote). No explicit analysis of

	Australia	Canada	Hong Kong SAR	New Zealand	Singapore
	because the sector (housing) was macro critical.	rejected because measure was not targeted to deal with financial stability, even though the issue itself was deemed macro-relevant and systemic (though without explicit analysis). In addition, no "surge in capital flows" found.	macroeconomic adjustment, and imposed because macroprudential measures would not affect cash buyers and further tightening of MPMs could have caused leaks into shadow banking. Issue deemed macro-relevant and systemic based on observed correlations between capital inflows and housing price developments. Motivated by financial stability considerations.	not address affordability, as non-residents did not seem important in local real estate market.	whether other policies had been exhausted.
Issue 3: Data and analysis of effectiveness	Data (foreign investment approvals for real estate purchases) are insufficient to fully assess the role of foreign buyers in real estate markets. Effectiveness of CFMs was not assessed. Conceptual considerations relating to discrimination vis-à-vis non-residents were provided but not applied.	Data insufficiently granular, but helpful IMF call for more data. Volume data alone may not be sufficient. IMF analysis could not demonstrate the relative effectiveness of different measures. Nonetheless, IMF argued broad-based measures would be more effective than CFMs. Argument is that tax rates would need to move more if just applied to non-residents—but not clear why this is an issue for Canada.	Data appear to be sufficient for detailed analysis. IMF econometric and model-based analysis of the impact of housing policies, including stamp duties, did not cover the effects of/on foreign capital flows into housing.	IMF noted paucity of data to gauge the importance of non-resident activity in real estate market. Given the small volume of such transactions, analysis of CFMs/MPMs or CFMs was not seen as feasible.	IMF mostly used authorities' and other (academic) observers' analysis on the impact of foreign capital inflows on housing and the effectiveness of policy measures. Independent IMF analysis was done for the 2019 Financial Stability Assessment Program, essentially confirming that of the authorities.
Issue 4: Resources/ labeling versus substance	A significant amount of IMF and authorities' resources was taken up by the issue, deflecting resources from more substantive issues.	An extraordinary amount of IMF and authorities' resources was used to determine whether measures constituted CFMs or CFMs/MPMs or not. Issue took up a lot of Executive Board time.	An extraordinary amount of IMF and authorities' resources was used to explain and prepare the authorities for the designation of their measure as CFM. Issue took up a lot of Executive Board time.	A significant amount of IMF and authorities' resources was used to explain the IMF's position.	An extraordinary amount of staff resources was used to explain and prepare the authorities for the designation of their measure as CFM. The issue absorbed an excessive amount of resources.
Issue 5: Wording versus labeling	While in 2017 the IMF clearly stated that measures were CFMs, the 2018 Article IV report's main text called only for removal of	After 2017, when the IMF noted that "CFM could be replaced with alternative measures," wording was toned	In 2017 IMF wording indicated that measures would be considered CFMs and MPMs, followed by a statement that they	IMF wording clearly indicated that measure would be a CFM. After adoption in 2019, the IMF noted that the	IMF characterization was carefully worded to avoid strong language about capital flow restrictions. Assessment that the measure

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	discrimination against non-residents without reference to CFM, and new and existing measures that would constitute CFMs were only discussed in a footnote.	down further and assessment relegated to footnotes in 2018/19 staff reports.	were appropriate. 2018 language was similarly carefully chosen.	measure was a CFM and inconsistent with the IV.	constituted a capital flow management/macroprudential measure appeared in a footnote.
Issue 6: Timing of application of IV/grandfathering	Issue not "discovered" until it came up in the context of Canada in 2017, even though policy in place well before Canada's. A much larger discriminatory measure—the federal ban on non-resident purchases of *existing* homes—did not get attention because it had been in place for many years (thus grandfathered).	Issue raised when policy was adopted (2017).	Issue raised only in 2017, even though policy in place before then. One CFM/MPM not assessed (grandfathered) as in place prior to IV (by a couple of months).	Issue raised when policy was considered by authorities and IV applied when policy adopted (2018/19).	Issue raised only in 2017, even though policy in place before then (2011).
Issue 7: Source country aspect	Not addressed, nor discussed.	Not addressed, though source of inflows identified, if anecdotally. General statement of need to ensure no money laundering affects housing sector.	Not addressed, and not mentioned.	Not addressed as not seen as relevant.	Not addressed, nor discussed.
Issue 8: Adaptability to experience and country circumstance	Measures were adopted by some regions, but copied more broadly subsequently. IMF supported the measures, as there was evidence of capital inflow surge in real estate, but called for the elimination of discrimination against non-residents.	Measures were adopted by regional/local authorities, not affecting the entire country. Measures seemed effective in dampening prices. IMF maintained strict reading of IV.	Hong Kong SAR is an economy with a currency board arrangement. Measures appeared desirable to dampen prices and IMF endorsed their continued use including aspect of discrimination as it was seen to be a very effective measure to influence house price developments.	Measures were taken mainly for political reasons. IMF did not endorse the policy as the issues of non-resident inflows into housing could not be assessed as raising either affordability or financial stability concerns related to housing.	Singapore is a city state without full exchange rate flexibility and seen as a regional safe haven. Measures appeared desirable to dampen prices. IMF nonetheless advocated the removal of discrimination and phasing out of the measure contingent on dissipation of systemic risk.

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