In Confidence

Office of the Minister of Commerce and Consumer Affairs

Chair, Cabinet Economic Development Committee

**INTRODUCTION OF A LICENSING REGIME FOR ADMINISTRATORS OF FINANCIAL BENCHMARKS**

**Proposal**

1. I seek Cabinet agreement to establish a licensing regime for New Zealand financial benchmark administrators under the Financial Markets Conduct Act 2013. This is necessary for New Zealand benchmarks to comply with European Union (EU) regulation of financial benchmarks and to avoid significant costs and risks to our financial markets that would otherwise arise.

**Executive Summary**

1. Financial benchmarks are figures or indexes, such as interest rates, that are referenced in financial products or contracts to set the price or determine the value of those financial products. They are critically important to New Zealand’s and international financial markets and, by implication, to broader economic activities. For example, financial benchmarks are a key part of setting the price under derivatives, which are used by banks, financial institutions and public sector asset managers for risk management and investment purposes.
2. In June 2016, the European Union (EU) responded to concerns about conflicts of interest and the manipulation of benchmarks by publishing new regulations relating to financial benchmarks. One example of such an issue was the 2012 London Interbank Offered Rate (LIBOR) scandal. This involved banks colluding and falsely inflating or deflating the interest rates they each submitted for benchmarking purposes, so they could profit from trades or give the impression that they were more creditworthy than they were.
3. The new EU regulations set standards around the processes by which benchmarks are set. The regulations have effect outside the EU as benchmark administrators in foreign jurisdictions must meet these new standards if the benchmarks they set can be used in financial contracts with parties located in the EU.
4. The EU regulations, which take full effect on 1 January 2020, have significant implications for New Zealand. Unless our regulatory regime and the administrator of New Zealand benchmarks, the New Zealand Financial Markets Association (NZFMA), meet the standards set in the EU regulations, New Zealand benchmarks will not be able to be used in critical financial contracts with EU parties.
5. This could mean that banks and other benchmark users (including the ACC, New Zealand Super Fund and New Zealand Debt Management Office) would no longer be able to transact with these EU counterparties in critical derivatives transactions. Non-acceptance of New Zealand benchmarks in the EU would also have broader implications for New Zealand’s capital markets, as New Zealand benchmarks are also used by EU entities in other important New Zealand dollar financial product markets.
6. To illustrate the potential impact of the EU regulations, the big four New Zealand banks alone currently have around $1.1 trillion exposed to EU counterparties, through their own requirements and those of their clients, in financial instruments that reference a key New Zealand benchmark (the Bank Bill Benchmark Rate (BKBM)). If these banks were no longer able to transact with EU counterparties, they would have to find alternative counterparties for this activity. This would lead to an overall increase in banks’ costs of funding on this activity, which banks would pass on to New Zealand customers in the form of increased borrowing costs. Officials estimate that the net present value of these costs over a five year period could range from $760 million to $1.5 billion.
7. To avoid these consequences, I propose to introduce a new licensing regime for New Zealand administrators of financial benchmarks. The licensing would be designed to satisfy the new EU regulations, provide additional assurance around the integrity of New Zealand benchmarks, and ensure continued access for New Zealand benchmarks into EU financial markets, thereby avoiding significant costs to NZ Inc.

**Background**

*The nature and purpose of benchmarks*

1. A financial benchmark is a reference index or indicator used to determine the price, value, or performance of financial instruments like derivatives. The accuracy and integrity of benchmarks is vital in the international financial markets where New Zealand banks and other financial institutions use derivatives to hedge exposure to different types of risk eg interest rate risk or foreign exchange rate risk when issuing debt in foreign currency.
2. Appendix One provides further information about derivatives, the BKBM and how financial benchmarks like the BKBM are referenced in common derivative transactions.

*Benchmark integrity problems and international regulatory response*

1. If the availability or integrity of key benchmarks is disrupted by market conduct concerns (e.g. a conflict of interest), there is a risk of financial instability, undermining investor confidence and financial losses.
2. Internationally, there have been serious cases of fraudulent manipulation of interest rate benchmarks. For example, in the 2012 LIBOR scandal, banks in the United Kingdom colluded and falsely inflated or deflated the interest rates they each submitted for benchmarking purposes, so they could profit from trades or give the impression that they were more creditworthy than they were.
3. The scandal was particularly significant because LIBOR is an important interest rate when it comes to global finance. It is used to determine the price that businesses pay for loans and indirectly affects the price that individuals pay for mortgages; and is also used in derivative pricing. In 2016, in aggregate, the LIBOR underpinned approximately US$300 trillion of loans globally.
4. In 2013, in response to these issues, the International Organization of Securities Commissions (IOSCO) developed the Principles for Financial Benchmarks (the IOSCO Principles), which set out the desirable characteristics of a regulatory regime for financial benchmarks to ensure accuracy, robustness and integrity of benchmarks and of the benchmark determination process in the EU.
5. Several jurisdictions, including the United Kingdom, the EU, Japan, Singapore, Canada and Australia, have since worked to align their regulatory regimes with the IOSCO Principles. Australia’s regulatory response was largely motivated by evidence of market conduct problems similar to the LIBOR scandal. The new Australian regime, which came into effect in March 2018, also created offences and penalties for manipulation of financial benchmarks.

*New EU benchmark regulations*

1. In June 2016, the EU published benchmark regulations which follow and extensively ‘gold-plate’ the recommendations of the IOSCO Principles. The regulations introduce new compliance requirements for benchmark administrators, contributors and users, as well as the overarching regulatory regime and practices of regulators supervising benchmark administrators.
2. The regulations have extra-territorial implications. If any non-EU benchmark (and administrator providing it and regulatory regime supporting it) does not meet the requirements of the regulations, the benchmark will not be able to be “used” by any EU “supervised entities”. “Using” a benchmark includes referencing the benchmark in a financial contract which a supervised entity is party to. “Supervised entities” include EU banks, investment firms, insurance companies, pension funds and fund managers.
3. The EU regulations provide three different mechanisms of satisfying the European Commission that standards in the EU regulations are being met in a third-party country. These mechanisms and their relevance to New Zealand are discussed further below.
4. Most of the EU regulation requirements phase in from 1 January 2018 and take effect on 1 January 2020. This lengthy transition period recognises that the regulations are complex, have implications for all market participants and considerable time is needed for to plan and implement the requirements.

*Benchmark administration in New Zealand*

1. Benchmark administration in New Zealand is carried out by the New Zealand Financial Markets Association (NZFMA). The NZFMA is an independent, incorporated society that publishes benchmarks such as the BKBM and Closing Rates, which are used by market participants in their financial instruments.
2. Since 2015, the NZFMA has voluntarily adopted operating rules and principles aligned with the IOSCO Principles. The NZFMA is not currently required to be licensed to carry out the benchmarking function, but financial market regulators (including the Financial Markets Authority (FMA) and Reserve Bank) participate as observers on the NZFMA’s Benchmark Oversight Committee.
3. The NZFMA’s benchmarking approach generally involves automated processing of information from market trading activity at, or close to, real time. Amongst other efficiencies, this automated approach reduces the scope for manipulation of the benchmark.
4. New Zealand regulators have not seen evidence in New Zealand of the types of behaviour apparent in other jurisdictions that would have been sufficient to take action under our regulatory regime. However, as outlined above, the NZFMA has already take action to shore-up its processes and ensure the integrity of our benchmark regime, including voluntarily adhering to the IOSCO Principles and involving financial markets regulators as observers on the NZFMA Oversight Committee.
5. Further information about the NZFMA and its benchmark administration approach is provided in Appendix Two.

**Comment**

*Implications of EU benchmark regulations for New Zealand*

1. If New Zealand does not have a regulatory regime, supervisory practice and benchmark administrator that comply with the EU regulations, the benchmarks administered by the NZFMA will not be able to be used by EU supervised entities. This means, in effect, that New Zealand parties will not be able to contract with EU counterparties in critical derivatives contracts that reference New Zealand benchmarks like the BKBM.
2. This will have very significant implications for New Zealand banks and other large private and public sector organisations (eg Reserve Bank, ACC, NZ Super Fund, NZ Debt Management Office) that rely on these contracts and access to EU financial markets for risk management, investment and capital raising purposes.
3. The big four New Zealand banks alone currently have approximately NZD$1.1 trillion exposed to EU counterparties (through their own requirements and those of their clients) in instruments that reference the BKBM. If these banks were no longer able to transact with EU counterparties, they would have to find alternative counterparties for this hedging activity. This would lead to significant liquidity reduction and credit concentration risk in the markets for relevant derivatives, leading to an overall increase in banks’ costs of funding. We estimate that this funding impact could be between 0.05 to 0.1 per cent on banks’ current outstanding exposure in BKBM-related instruments with EU counterparties. Banks would pass any increase in their cost of funding on to New Zealand domestic customers in the form of increased borrowing costs. We estimate that the net present value of these costs over a five year period could range from $760 million to $1.5 billion.
4. Other key public sector entities, such as the Reserve Bank, ACC, New Zealand Super Fund and New Zealand Debt Management Office also use instruments that reference the BKBM. Some of these transactions will be with EU counterparties and would be significantly affected by the EU regulations. We do not have estimates of the extent to which they might be impacted.
5. From a wider market perspective, removal of EU entities from BKBM-related instruments will reduce liquidity and participation in other NZD financial products, including forwards, foreign exchange contracts, inflation bonds and kauri bonds. This may inhibit the development of New Zealand’s capital markets. EU holders of New Zealand Government bonds and New Zealand Local Government Funding Agency bonds will also be impacted due to their reduced ability to hedge NZD interest rate risk through interest rate swaps referencing BKBM. This would potentially reduce their appetite to hold NZD-denominated debt including that issued by the New Zealand Debt Management Office.
6. Overall, therefore, loss of EU market access could have a very significant impact on NZ Inc.

*Achieving compliance with EU regulations*

1. To ensure compliance with the EU regulations and continued access to EU financial markets, we therefore need to establish a regulatory regime for benchmark administration in New Zealand that complies with the EU regulations.
2. As noted above, the EU regulations provide for three mechanisms to satisfy the European Commission that standards in the EU regulations are being met. These are seeking “equivalence”, “endorsement” or “recognition”.
3. The most appropriate mechanism for New Zealand to follow is to seek “equivalence” with the EU regulations. This essentially involves consideration by the European Commission of the legal framework and supervisory practice of a third country and how that ensures:
	1. benchmark administrators comply with binding requirements equivalent to the EU regulations (including compliance with the IOSCO Principles) and
	2. effective supervision and enforcement of the benchmark administrator by a competent regulatory authority on an ongoing basis.
4. The endorsement and recognition mechanisms are not feasible or appropriate for New Zealand or the NZFMA.
	1. Endorsement would require having an entity based in the EU (such as another benchmark administrator) to be part of the control and administration framework of the NZFMA and to effectively monitor the benchmark process followed by the NZFMA. Due to distance and different time zones and the practical difficulties of finding such an entity to conduct this monitoring role, this would involve a substantial and costly restructure of the way in which the NZFMA provides its benchmarks. Endorsement is therefore not feasible.
	2. Recognition would require finding a regulatory authority in an EU “Member State of reference” to recognise the NZFMA. The NZFMA would then have to have an EU representative based in the EU Member State of reference, who would be responsible for oversight of the benchmarks administered by the NZFMA. As with the endorsement option, setting up suitable compliance arrangements would be costly and would involve ceding control offshore to another entity. Recognition is therefore also not feasible.

*Proposal*

1. In order to achieve compliance with the EU regulations and ensure continued access to critical EU financial markets and counterparties for New Zealand benchmarks, I propose to implement a licensing regime for administrators of financial benchmarks under the Financial Markets Conduct Act 2013.
2. Licensing, monitoring and enforcement would be carried out by the FMA as the regulator and subsequent regulations would prescribe the detail of the licensing standards and conditions, consistent with the EU regulations.
3. Licensing would be on an opt-in rather than mandatory basis as this is easier to implement and would only capture the types of financial benchmarks we are interested in regulating. At this stage, it is expected that the NZFMA is the only entity that would apply for a licence and they have confirmed their clear intention to do so.
4. The licensing of benchmark administrators would be designed to comply with the EU regulations and establish the basis for an “equivalence” application to the European Commission meeting the criteria set out in paragraph 33.
5. By providing a regulatory regime that complied with the EU regulations, licensing would ensure continued access to critical EU financial markets and counterparties for affected New Zealand benchmarks, thereby avoiding the significant costs to New Zealand benchmark users and NZ Inc that might otherwise arise.
6. Licensing is also the preferred option because it:
	1. involves relatively low initial-set up and ongoing operational costs (FMA estimates that its annual costs of licensing and monitoring the NZFMA would be approximately $80,000, to be recovered through a licensing fee and annual levy)
	2. enables actual or potential benchmark-related conduct issues to be managed in a way that are consistent with the IOSCO Principles as they are currently being implemented voluntarily by the NZFMA in New Zealand
	3. utilises the expertise of our financial markets regulator, the FMA, to provide additional assurance around the integrity of New Zealand benchmarks
	4. will likely introduce few additional costs to the existing benchmarking system
	5. may be possible to progress the required amendments to the Act in a timely manner by including them in the International Financial Reforms Amendment Bill (being drafted to respond to international reforms related to derivative margin requirements and Cabinet decisions in DEV-18-MIN-0031).
7. I note that Australia has also introduced a licensing regime for administrators of financial benchmarks in response to concerns about the integrity of benchmarks and in the context of the EU regulations.

*Alternative options less appropriate*

1. Two alternative options to licensing were considered but were dismissed as they were less appropriate.
2. The first alternative option was for benchmark administration in New Zealand to be carried out by the Reserve Bank, as the EU regulations do not apply to third country central banks.
3. I do not propose central bank administration because it would significantly disrupt the largely satisfactory status quo benchmarking activities of the NZFMA. Moreover, benchmark administration is not a good regulatory fit within the scheme of the Reserve Bank of New Zealand Act (RBNZ Act). The issue being addressed by regulation relates primarily to market conduct concerns (e.g. managing conflicts of interest and benchmark manipulation), rather than market stability issues. The Reserve Bank would also incur significant costs in employing requisite in-house operational expertise and establishing the benchmarking systems and processes currently being delivered by the NZFMA.
4. The second alternative option was to develop a new process within the RBNZ Act for the joint designation of benchmarks by the Reserve Bank and FMA, where those benchmarks were systemically important for market stability and efficiency reasons. This process would be based on the existing process in the RBNZ Act for designation of settlement systems. Designation would establish the basis for an equivalence decision, with the Reserve Bank and FMA having joint ongoing supervisory and enforcement responsibilities and powers in relation to the benchmark administrators.
5. This option was considered less appropriate than licensing under the FMC Act as the concerns being regulated for relate to market conduct rather than market stability and efficiency, and the costs and practical complexity of a joint regulatory arrangement would likely outweigh the benefits of a single-regulator model.

**Consultation**

1. The Treasury, Reserve Bank, FMA, and the Department of Prime Minister and Cabinet (Policy Advisory Group) were consulted as part of the development of this paper. Feedback received has been considered and addressed.
2. The Ministry of Business, Innovation and Employment (MBIE) and the FMA also discussed the proposals with the NZFMA and relevant industry participants (primarily banks) with the assistance of the NZFMA.
3. Consultation confirmed the need for prompt action and found strong support for the preferred option. The FMA supports being responsible for licensing and ongoing supervision and enforcement of the NZFMA as the benchmark administrator, and the NZFMA supports being licensed.
4. While officials did not consult publicly or seek specific feedback from consumer groups in the interests of time, the general public will not be affected by the licensing of benchmark administrators and will be worse off if no action is taken. I am therefore confident that consumers would support the proposed approach.
5. MBIE and FMA have also had preliminary discussions with EU representatives to ensure a degree of confidence that licensing benchmark administrators based on the IOSCO Principles would establish the basis for an EU equivalence decision.

**Financial Implications**

1. The proposals in this paper have no significant financial implications. Costs for initial set-up and for ongoing administration of licensing will be recoverable through new licensing fees and annual industry levies. Officials expect that any increased cost to the FMA of monitoring and supervision will be absorbed in their baseline but will keep this under review.

**Human Rights**

1. There are no human rights implications arising out of this paper.

**Legislative Implications**

1. The proposals in this paper will involve an amendment to the Financial Markets Conduct Act 2013 and the making of new regulations under that Act prescribing licensing standards and conditions. I propose that the required amendment to the Act be incorporated in the International Financial Reforms Amendment Bill - **s9(2)(f)(iv)**.

**Regulatory Impact Analysis**

1. MBIE’s Regulatory Impact Analysis Review Panel has reviewed the attached Impact Summary. It considers that the information and analysis summarised in the Impact Summary meets the criteria necessary for Ministers to fairly compare the available policy options and take informed decisions on the proposals in this paper.

**Publicity**

1. I do not propose to issue a press release regarding the decisions in this paper but MBIE will inform key stakeholders directly as appropriate.

**Proactive release**

1. I propose that, subject to Cabinet’s agreement to the proposals in this paper, it be proactively released on MBIE’s website with appropriate redactions.

**Recommendations**

I recommend that the Committee:

1. **note** that financial benchmarks, such as the Bank Bill Benchmark Rate (BKBM), are critically important to New Zealand’s financial markets and the broader economy;
2. **note** that European Union (EU) financial benchmark regulations, which take full effect on 1 January 2020, have significant implications for New Zealand due to:
	1. the potential for certain New Zealand financial benchmarks to not be accepted in EU financial markets;
	2. consequent loss of access to EU financial markets for New Zealand users of those benchmarks and increased costs to those users, leading to significant costs to New Zealand businesses and consumers; and
	3. other broader effects on New Zealand’s capital markets;
3. **note** that the EU regulations provide for an EU ‘equivalence’ decision that would ensure continued access for New Zealand benchmarks to EU financial markets;
4. **note** that, if New Zealand establishes a licensing regime for administrators of financial benchmark, it is likely that regime would provide the basis for an EU equivalence decision as well as provide additional assurance around the integrity of our benchmark administration;
5. **agree** to the establishment of a licensing regime for administrators of financial benchmarks under the Financial Markets Conduct Act 2013;
6. **invite** the Minister of Commerce and Consumer Affairs to issue drafting instructions to the Parliamentary Counsel Office to give effect to the above recommendations;
7. **authorise** the Minister of Commerce and Consumer Affairs to make decisions, consistent with the above recommendations, on any minor or technical matters that may arise during the drafting process.

Authorised for lodgement

Hon Kris Faafoi

Minister of Commerce and Consumer Affairs

**Appendix One:** **Financial instruments and Benchmark Rates**

**Financial derivatives**

A financial derivative is a contract that derives its value from the performance of an underlying [asset](https://en.wikipedia.org/wiki/Asset), [index](https://en.wikipedia.org/wiki/Index_fund), or [interest rate](https://en.wikipedia.org/wiki/Interest_rate). Derivatives can be used for insuring against price movements (hedging), increasing exposure to price movements for speculation, or getting access to otherwise hard-to-trade assets or markets.

Common derivatives include [forwards](https://en.wikipedia.org/wiki/Forward_contract), [futures](https://en.wikipedia.org/wiki/Futures_contract), [options](https://en.wikipedia.org/wiki/Option_%28finance%29) and [swaps](https://en.wikipedia.org/wiki/Swap_%28finance%29). Many derivatives are traded [over-the-counter](https://en.wikipedia.org/wiki/Over-the-counter_%28finance%29) (OTC) (off-exchange) rather than on an exchange.

**Bank Bills**

A Bank Bill is a short-term transferable instrument under which a bank is liable to pay the holder a specified amount on a specified maturity date. The instrument can be on-sold, and the maturity date is generally between 30 to 180 days after issue.

Banks may buy and sell Bank Bills for cash management and funding purposes. A bank that sells Bank Bills is effectively borrowing money, which can be used to fund other parts of its business, such as loans to customers. A bank that purchases Bank Bills is lending or investing money.

By buying Bank Bills, banks invest in a relatively safe and liquid investment that will earn a base level of interest. New Zealand banks’ funding mainly comes from retail deposits (often around 60 per cent to 70 per cent of their funding needs). Currently, Bank Bills account for only 1 per cent to 2 per cent of New Zealand banks’ total funding.

**The Bank Bill Benchmark Rate (BKBM)**

The Bank Bill Benchmark Rate (BKBM) is the main interest rate benchmark in New Zealand. It is designed to reflect the supply and demand for Bank Bills and is used by market participants to calculate the amounts payable under various financial instruments. It is also used in calculating the value of many financial instruments.

Because Bank Bills are short term instruments (with a maturity date of around 30-180 days), the market for Bank Bills is highly liquid. The BKBM is therefore a good reflection of the unsecured lending/borrowing rates between banks.

BKBM rates are currently calculated based on electronic capture of trade information, or executable bid and offer pricing in the absence of trades, during a daily two-minute trading window. The calculation of BKBM rates based on actual observed transactions is a pioneering feature of the New Zealand market.

**BKBM use in the EU by EU supervised entities**

The two main derivatives that reference BKBM where counterparties are likely to be EU-regulated are New Zealand dollar (NZD) interest rate swaps and cross-currency swaps.

NZD interest rate swaps are used extensively by domestic banks to hedge interest rate risk on their balance sheets, while cross-currency swaps are used to hedge currency risk associated with funding raised in other currencies.

In a very simple interest rate swap, Party A might agree to pay Party B based on a fixed interest rate, and Party B might agree to pay Party A based on a floating interest rate. The floating rate will be tied to a financial benchmark, such as the BKBM. Party B might pay, for example, BKBM + 1 per cent per month on whatever the principal amount is.

BKBM is also used as a reference in cross-currency swaps, where funding is raised in an alternative currency and swapped to NZD using BKBM as the funding rate reference. These transactions are not “cleared” through a central party and are bilateral in nature between the New Zealand domestic party (eg bank) and the offshore counterparty.

BKBM is also used by EU-regulated entities to settle other types of NZD financial products such as Forward Rate Agreements and Floating Rate Notes.

**Closing Rates**

Closing rates are the end-of-day rates or prices for various traded securities, including interest rate swaps, foreign exchange rates, corporate bonds and government bonds. Closing rates are particularly important to the funds management industry, including KiwiSaver funds, which rely on closing rates to assess the value of their portfolios.

Until recently, end-of-day closing rates were based on submissions of indicative prices (expert opinions about the relevant price, value or rate) from market participants. However, in 2017, the NZFMA moved to a methodology based on electronic capture of dealable bids and offers from selected market participants.

**Closing rates and the EU regulations**

As closing rates are designed to be a price reference point to assist with end-of-day financial product valuations, it is possible that the NZFMA’s closing rates could be benchmarks that are affected by the EU regulations. Given the relatively wide global use of the NZFMA’s closing rates for daily revaluations of international investment portfolios, in particular New Zealand’s credit market closing prices, any restriction on their use would have a detrimental impact on the liquidity of our already illiquid credit markets. This would lead to increased costs of capital raising for local corporate and other financial entities.

**Appendix Two: Information on the New Zealand Financial Markets Association**

The NZFMA is a not-for-profit, incorporated society with the following membership:

* ***Financial markets members***: ANZ, ASB Bank, Bank of New Zealand, Westpac, Kiwibank, Hong Kong Shanghai Banking Corporation, China Construction Bank (New Zealand) Ltd, Citibank.
* ***Affiliate members***: Reserve Bank of New Zealand, New Zealand Debt Management Office.
* ***International members***: JP Morgan Chase Bank N.A., Deutsche Bank AG, UBS AG (Australia Branch).
* ***Financial intermediary members***: HiFX Ltd, ICAP New Zealand Ltd, OM Financial Ltd.
* ***Partner members***: Buddle Findlay, CFG Global, Interactive Data (Australia) Pty Ltd.

The NZFMA maintains ‘*Reference Rate Operating Rules/Guidelines & Principles*’ for the following financial markets to ensure an accurate set of reference rates that make up what the NZFMA refers to as the ‘*NZdata Service*’.

* New Zealand Bank Bill Reference Rate (BKBM)
* New Zealand Swaps Close
* New Zealand Government Bond Close
* New Zealand Overnight Indexed Swaps (OIS) Close
* New Zealand Bills/LIBOR Close
* New Zealand Credit Market Pricing Service
* New Zealand Trade Weighted Index.

In 2015, the NZFMA established a Benchmark Oversight Committee to oversee the capture, calculation and publishing methodology of the New Zealand reference rate and indicative closing rates, which are calculated and published via the NZdata Service.

This committee will review and challenge all aspects of the benchmark determination process appropriate to the benchmark in question and provide effective oversight for the NZFMA as benchmark administrator. This includes consideration of the features and intended, expected or known usage of the benchmarks and the materiality of existing or potential conflicts of interest identified.

The committee includes representation from benchmark submitters, benchmark users and independent industry experts. Benchmark Oversight Committee members are appointed annually by the NZFMA Board. The regulators (Reserve Bank and Financial Markets Authority) are involved as observers.