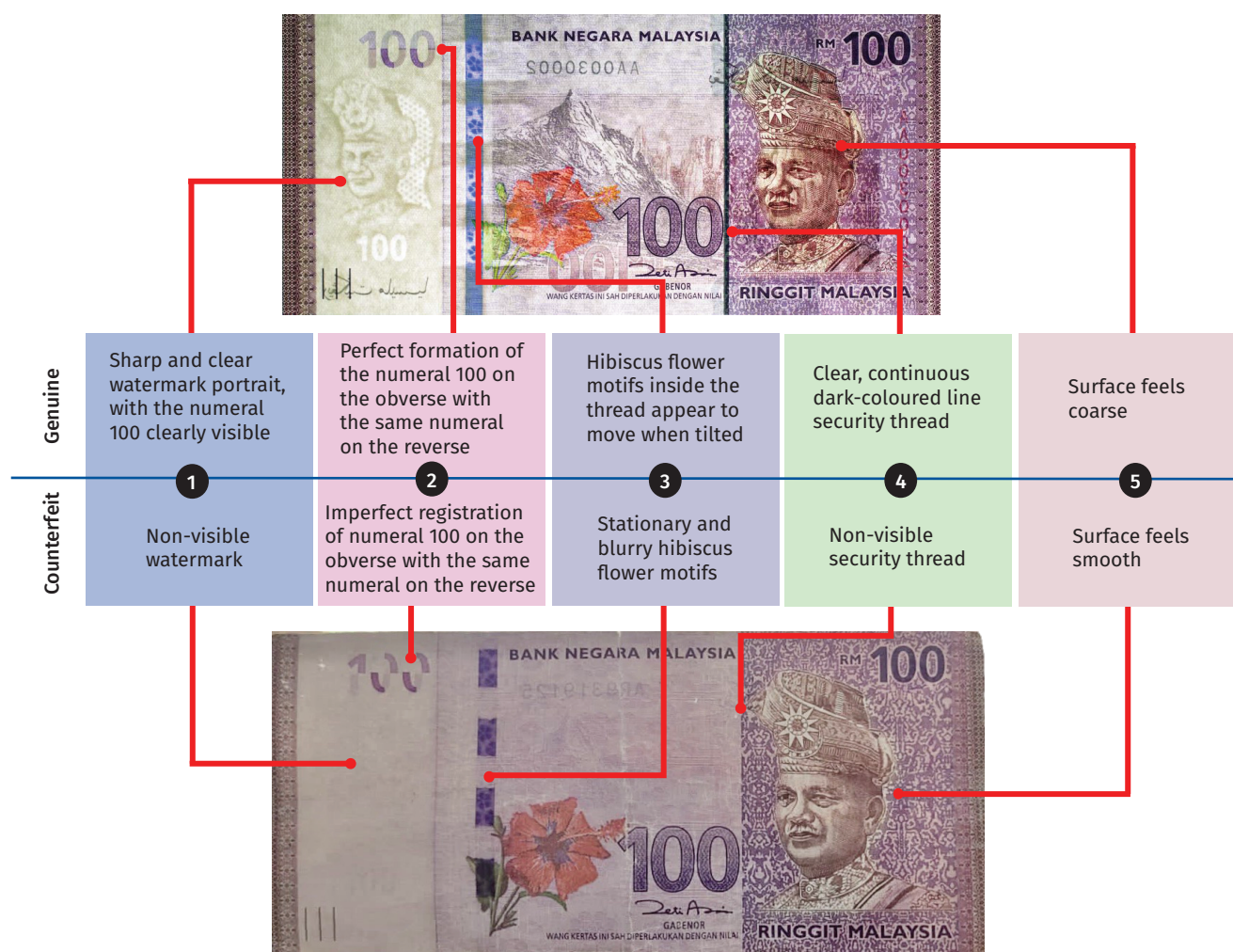


Banknote Counterfeiting in Malaysia: Trends, Challenges and Strategies

As the sole currency issuing authority, only the Bank has the power to issue legal tender currency notes and coins in Malaysia. Legal tender means that the currency notes and coins issued by the Bank are legally recognised as valid means of payment. Counterfeit currencies, on the other hand, are imitations of genuine notes and coins that are produced by criminals with the intention to deceive the public for financial gain. Counterfeit currency is not legal tender and has no value. As such, the Bank does not reimburse any counterfeit Malaysian currency.

In Malaysia, counterfeiters usually target high denomination notes due to their high value. At first glance, counterfeit notes may appear similar to genuine notes. Upon closer inspection, however, there are clear differences that the public should be aware of. Genuine notes have many embedded security features that are harder to replicate. Thus, the best way to differentiate a genuine note from a counterfeit is to identify common security features such as the watermark, perfect see-through register, security thread and intaglio print (that gives a coarse feel on the surface of the notes) (Diagram 1).

Diagram 1: Identifying Genuine and Fake Banknote



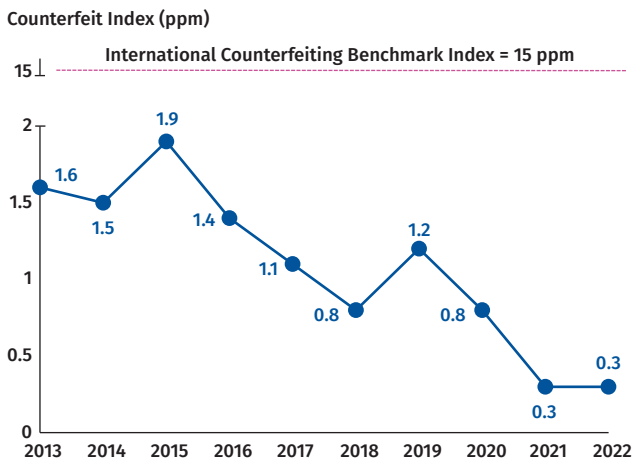
Source: Bank Negara Malaysia

Five Key Facts About Note Counterfeiting in Malaysia

Incidence of note counterfeiting in Malaysia is well below the international counterfeiting benchmark index of 15 parts per million (ppm).

Key Fact 1: Malaysia's note counterfeiting index has been trending downwards

Chart 1: Counterfeit Index (ppm) Over 10 Years



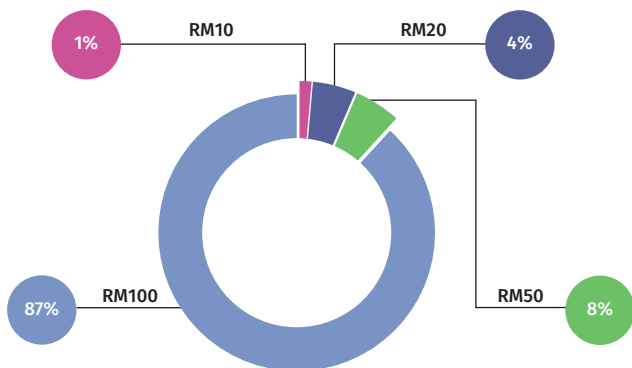
Source: Bank Negara Malaysia

In the last ten years, our note counterfeiting index has steadily declined from a peak of 1.9 ppm in 2015 to 0.3 ppm in 2022 (Chart 1), equivalent to only three pieces of counterfeits for every ten million pieces of currency notes in circulation. Reported cases of counterfeit notes are very rare.

Despite low note counterfeiting incidence, the Bank remains vigilant in curbing currency counterfeiting activities.

Key Fact 3: High denomination notes are more likely to be targeted

Chart 2: Counterfeit Percentage Based on Denominations

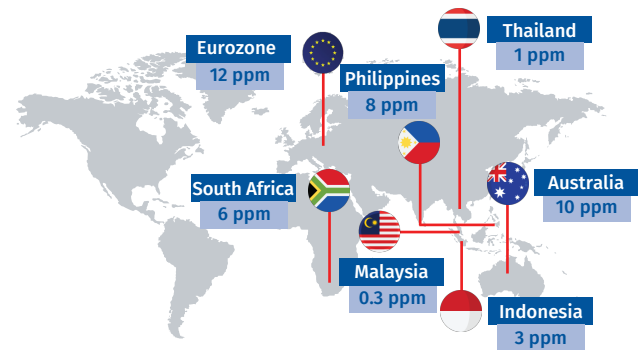


Note: Data from Jan'22 – Dec'22

Source: Bank Negara Malaysia

Key Fact 2: Malaysia's note counterfeiting index is lower than that of other benchmarked countries

Diagram 2: Counterfeit Index Against Other Countries



Note: Data for 2021 (rounded up), except Malaysia

Source: Websites and Annual Reports of the Respective Central Banks

Malaysia's low note counterfeiting index underlines the robustness of the anti-counterfeiting security features embedded into our notes.

Key Fact 4: Central region recorded higher incidence of currency counterfeiting

Diagram 3: Counterfeit Cases Reported According to Region



Note: Data from Jan'22 – Dec'22

Source: Bank Negara Malaysia

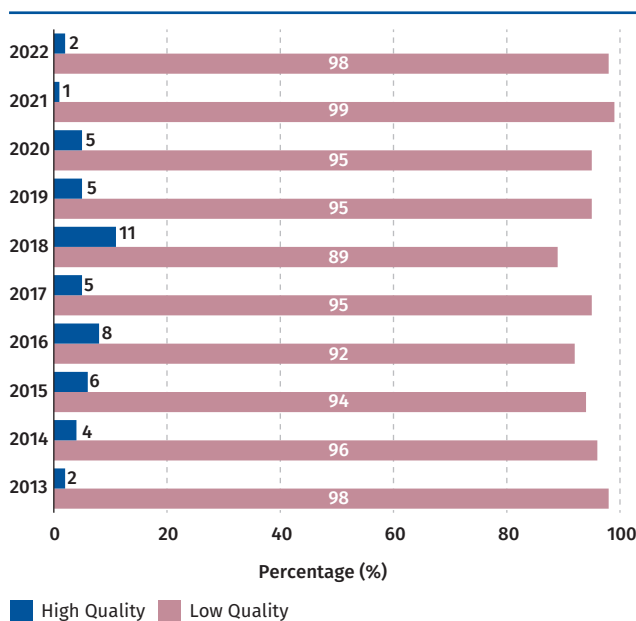
The two highest denominations, namely RM100 and RM50, are the most targeted denominations (Chart 2), accounting for 95% of all counterfeiting incidents reported to the Bank, due to their higher value.

The Central region, which has the highest concentration of population and CIC, recorded higher incidence with 69.3% of counterfeit cases reported in 2022 (Diagram 3). Reports of note counterfeiting in other regions are significantly fewer and isolated.

Counterfeit banknotes in Malaysia are mostly of low quality that can be easily identified.

Key Fact 5: Most counterfeit notes are of low quality

Chart 3: Percentage of Counterfeit Cases Based on Quality





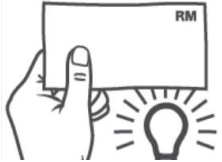






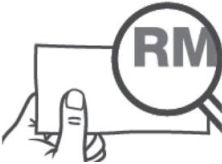
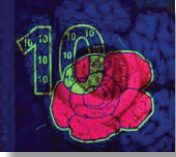

Source: Bank Negara Malaysia

Most counterfeit notes reported to the Bank are simple counterfeits, printed using colour printers on ordinary paper and without any security features embedded. With a smooth surface and no coarse feel, they are mostly of low quality, making the counterfeits easily distinguishable from genuine notes.

Counterfeit incidents in Malaysia are mostly perpetrated by small-scale operations, usually by petty criminals who work alone using commercial devices such as photocopiers, scanners and laser printers. As such, the counterfeits that they produce typically lack all embedded security features.

Our notes have numerous security features on both sides. These are a mix of both simple and sophisticated features. Simple features can be detected using the human senses of sight and touch. The public can make use of the Feel-Look-Tilt-Check (FLTC) authentication method (Diagram 4) to check the security features of our notes. The more sophisticated security features such as magnetic inks can be detected by sensors that are fitted on all cash deposit machines (CDM) as well as on high-speed processing machines used by the Bank, FIs and RCPs to process notes. Hence, it is highly unlikely that any counterfeit notes would pass undetected through any of these CDM and processing machines.

Diagram 4: FLTC Authentication Method for Detecting Counterfeit Banknotes

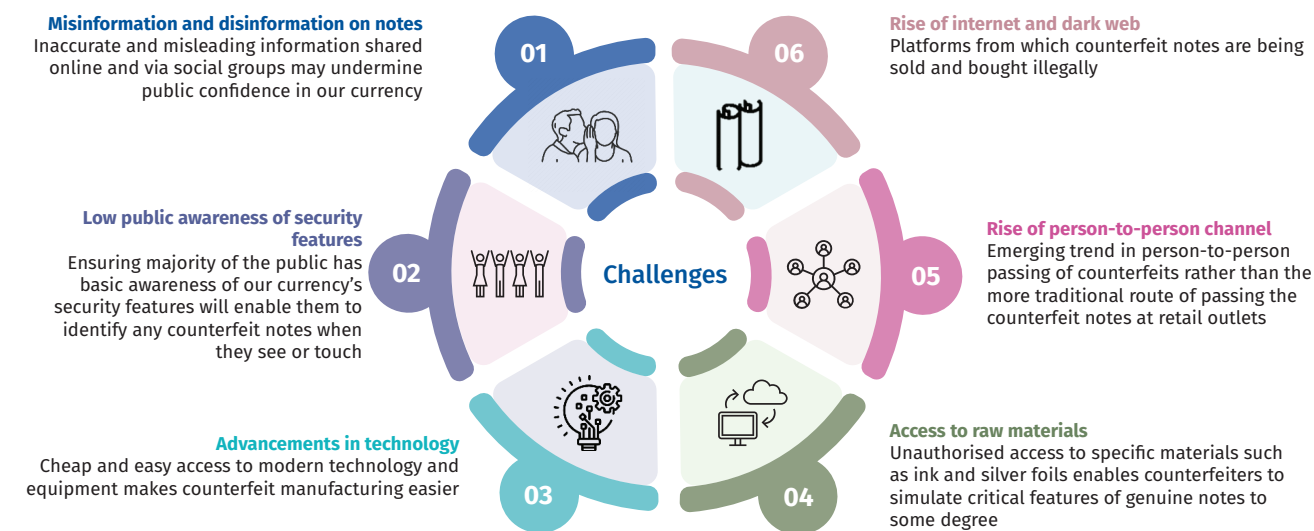
Method	Details	Security Features	
<p>FEEL</p> 	<ul style="list-style-type: none"> • Currency note is printed on a very high-quality paper/polymer material (substrate). • Raised printing effect produced by applying layers of tactile inks on various parts of the obverse and reverse sides of the note. 	<p>Feel the raised print effect on the portrait of the first SPB Yang di-Pertuan Agong</p> 	
<p>LOOK</p> 	<p>Look at the currency note against white light and observe:</p> <ul style="list-style-type: none"> • 3-Dimensional watermark portrait, perfect see-through register and clear window will appear. 	<p>Watermark portrait</p>  <p>Clear window</p> 	<p>Perfect see-through</p> 
<p>TILT</p> 	<p>Tilt the note and observe:</p> <ul style="list-style-type: none"> • Image and colour change at the security thread and coloured glossy patch. 	<p>Colour-shifting security thread</p> 	<p>Coloured-glossy patch</p> 
<p>CHECK</p> 	<p>Check the currency note using simple equipment:</p> <ul style="list-style-type: none"> • UV light device – paper material (substrate) will not glow except for selected security features. • Magnifying glass – micro-letterings will be clearly visible. 	<p>Fluorescent elements</p> 	<p>Micro letterings</p> 

Source: Bank Negara Malaysia

Six Challenges in Managing Currency Counterfeiting Threats in Malaysia

Despite low incidence of currency counterfeiting, managing currency counterfeiting threats remains a challenge (Diagram 5). Enhancing our notes with more security features will not completely eliminate counterfeit notes in circulation as counterfeiters will continue to develop and adopt newer techniques to defraud the public and evade the authorities.

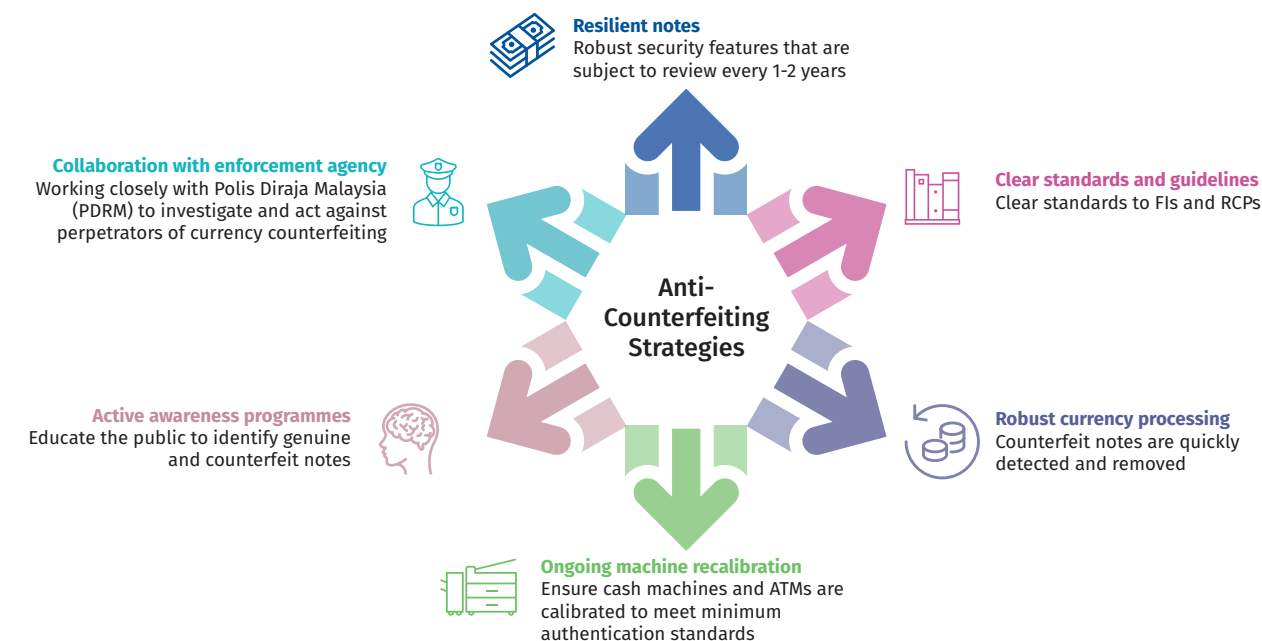
Diagram 5: Challenges in Managing Counterfeiting Threats



Source: Bank Negara Malaysia

The Bank plays an active role to protect the integrity of our currency and ensure high public confidence in the country's notes and coins. Six anti-counterfeiting strategies are deployed to ensure our currency notes and coins remain protected against counterfeiting (Diagram 6).

Diagram 6: Anti-Counterfeiting Strategies



Source: Bank Negara Malaysia

Issuing notes with robust security features into circulation is one of the Bank's multi-pronged anti-counterfeiting strategies. We also develop standards for our industry players and guidelines for the public to ensure any counterfeit notes are detected and removed so that only high-quality notes are reissued into circulation. In combating counterfeiting activities, the Bank works closely with cash machines and Automated Teller Machines (ATMs) operators to calibrate their machines to meet our authentication standards. The Bank also collaborates with external stakeholders to conduct currency awareness programmes to enable them to spot counterfeit notes when they see or touch one. In ensuring the effectiveness of the strategies, the Bank works closely with PDRM to investigate and act against perpetrators of currency counterfeiting.