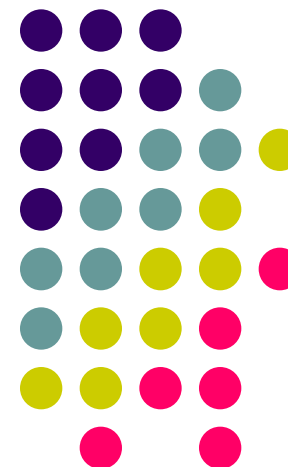


Accelerating the Migration to Electronic Payments



Payment System Forum
9 December 2013



Presentation Outline



- Costs of retail payment instruments
- Global developments in payments
- Case studies of advanced countries
- Challenges for Malaysia
- Reform measures to transform the payment landscape
- Conclusion



Cost of Retail Payment Instruments



Types of Retail Payment Instruments



- Paper based instruments
 - Cash
 - Cheques
- Electronic payments
 - Credit Transfer (initiated by the payer to transfer funds to a beneficiary account)
 - Interbank Giro (IBG)
 - Real-time Interbank Funds Transfer (IBFT)
 - Direct Debit (initiated by the payee on the basis of an authorization given by the payer)
 - Standing instructions
 - Payment Cards
 - Credit card
 - Debit card



Social Cost of Retail Payment Instruments (RPIs)



- Social Cost (**Cost to society**)
 - Total cost for the production of payment services. It excludes fees paid by one participant to another in the payment chain.

- Highlights of the Results of the European Central Bank's study (*Sept 2012*)
 - Social cost of RPIs amounts to **1% of GDP** for the 27 EU countries (Eur 130 billion).
 - **Cash** accounts for nearly half of the total social cost of RPIs.
 - Half of the **social cost** are incurred by Banks and Clearing Houses, 46% by retailers.
 - Retailers incur higher **private cost** than Banks and Clearing Houses.
 - Fees paid to other payment chain participants
 - In a third of the sample of 13 EU countries, **debit card** transactions have lower unit cost than **cash** transactions.



Unit Cost and Comparison between EU countries



Unit social cost per instrument

| | Cash | Cheques | Debit Cards | Credit Cards | Direct Debit | Credit Transfer |
|---------|-------|---------|-------------|--------------|--------------|-----------------|
| Wt. Avg | 0.42* | 3.55 | 0.7* | 2.39 | 1.27 | 1.92 |

* In 5 of the 13 EU countries, the unit social cost of **debit card** is lower than **cash**

Comparisons between clusters of EU countries

| | | Cluster 1 | Cluster 2 | Cluster 3 |
|---------------------------------|---|-------------|-------------|-------------|
| Social costs to GDP (%)* | ↑ | 0.8% | 1.1% | 1.2% |
| Cash payments per capita | ↑ | 154 | 266 | 306 |
| Cheque payments per capita | ↑ | 1 | 6 | 23 |
| Card payments per capita | ↓ | 171 | 83 | 59 |
| Credit transfer per capita | ↓ | 98 | 55 | 24 |

* Social costs of RPis for individual EU countries vary from as low as **0.42%** to **1.35%** of GDP



Global Developments in Payments

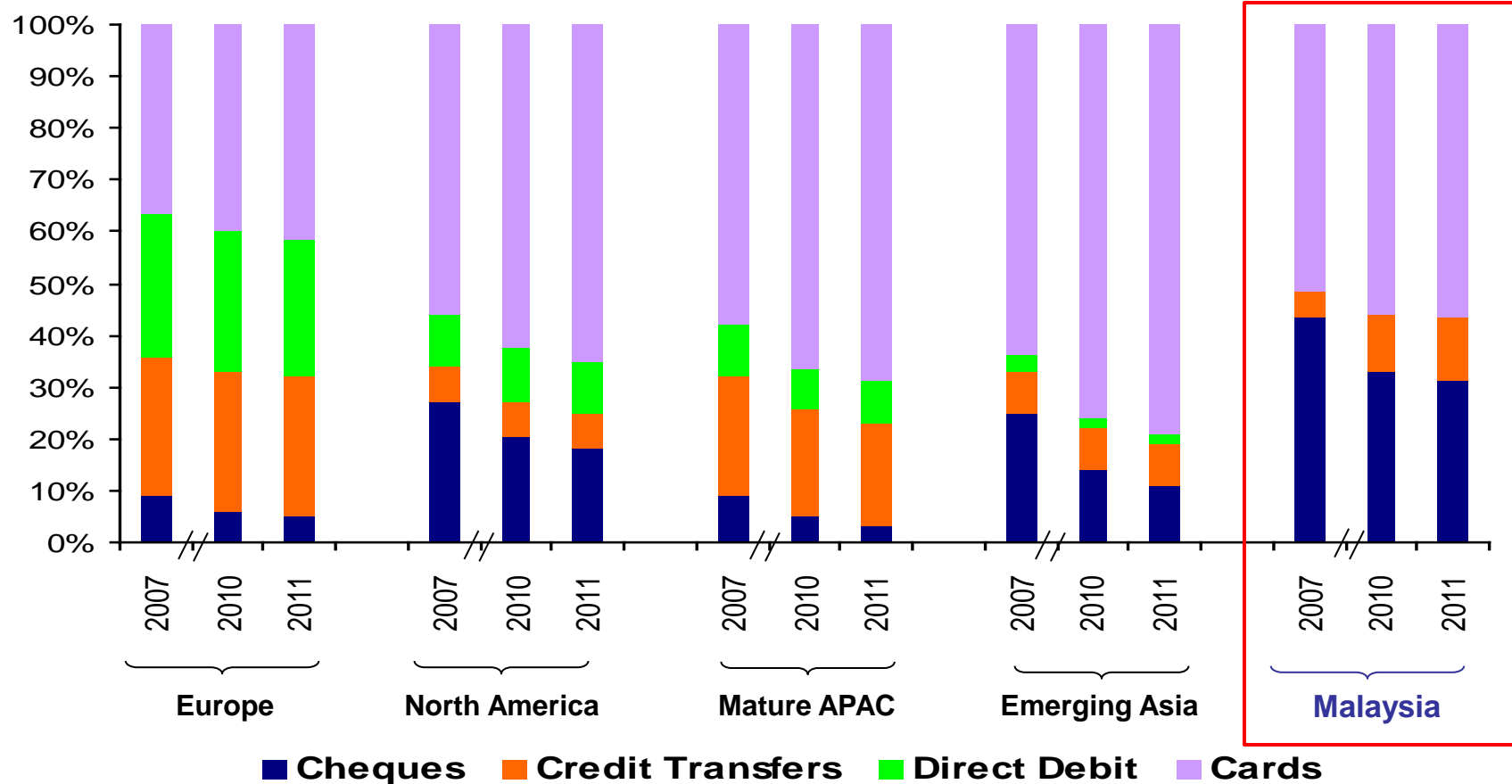


Declining cheque usage is a global trend



Non-Cash Transactions and Change in Payment Mix (%)

Source: World Payments Report 2013



Cheques have been declining in terms of its share of non-cash payments in many countries. Malaysia still has relatively high cheque usage.

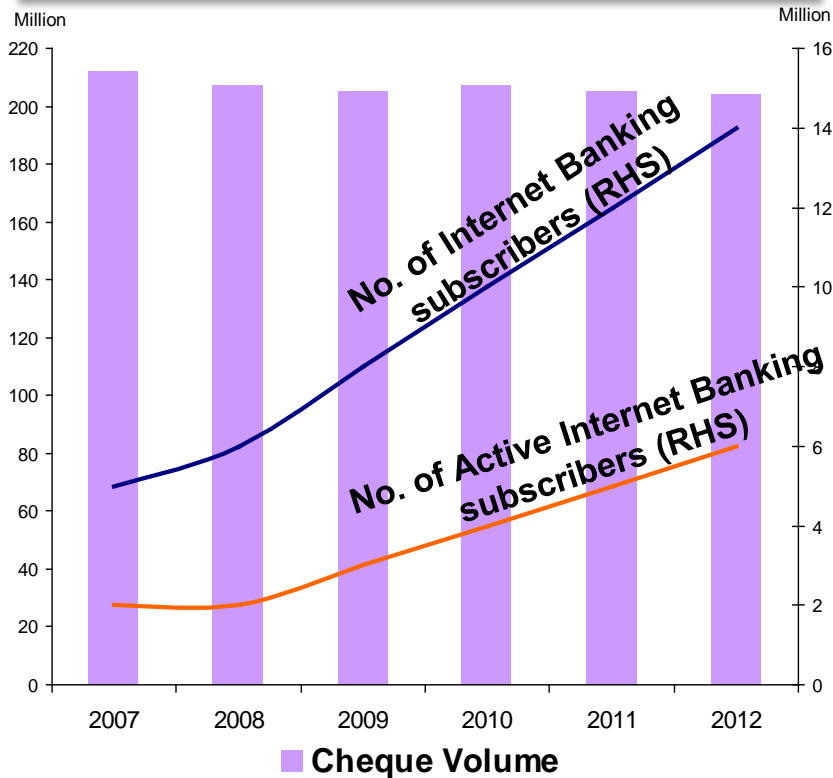


Assessment of Malaysia's case



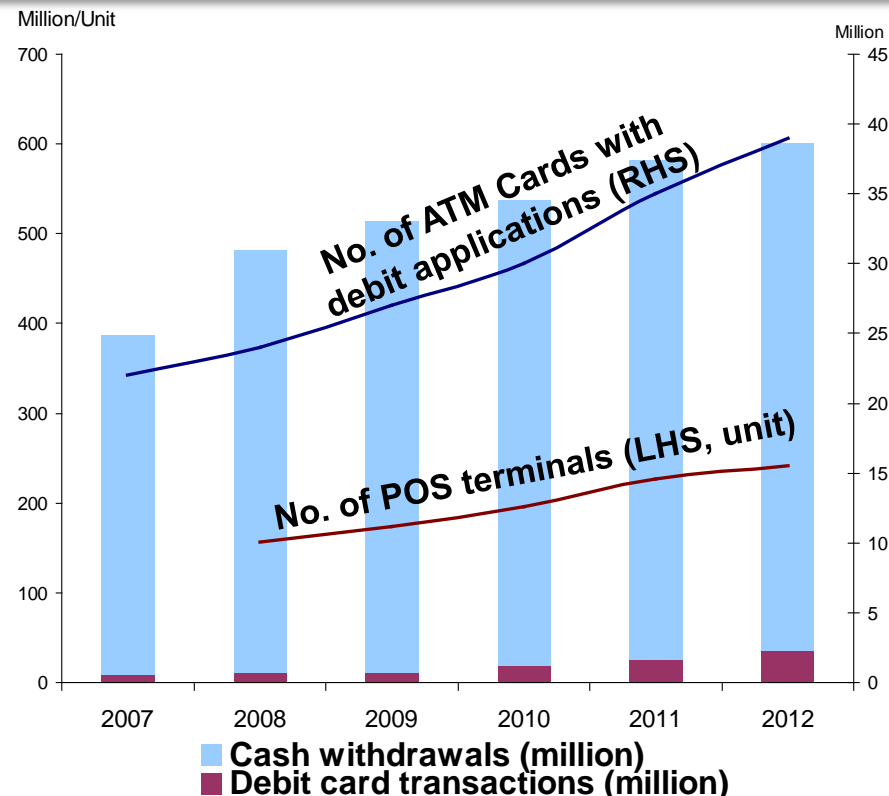
Cheques have only declined marginally.

Active Internet Banking subscribers have not increased to its potential.



Debit Card transactions remain negligible although all ATM cards have a debit application.

Cash withdrawals continue to increase.



Sungard's 2013 report

Thailand

Indonesia

Philippines

Malaysia

Visits by customers to bank branches

78%

86%

96%

99%



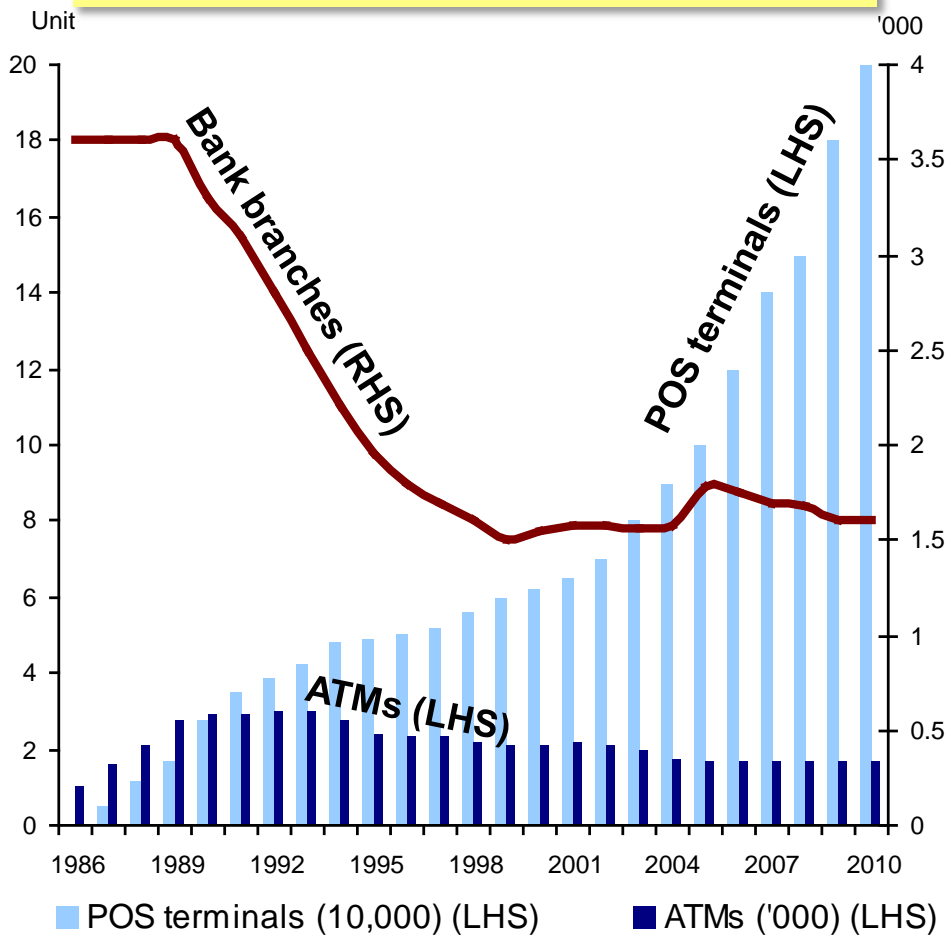
Case Studies of Advanced Countries



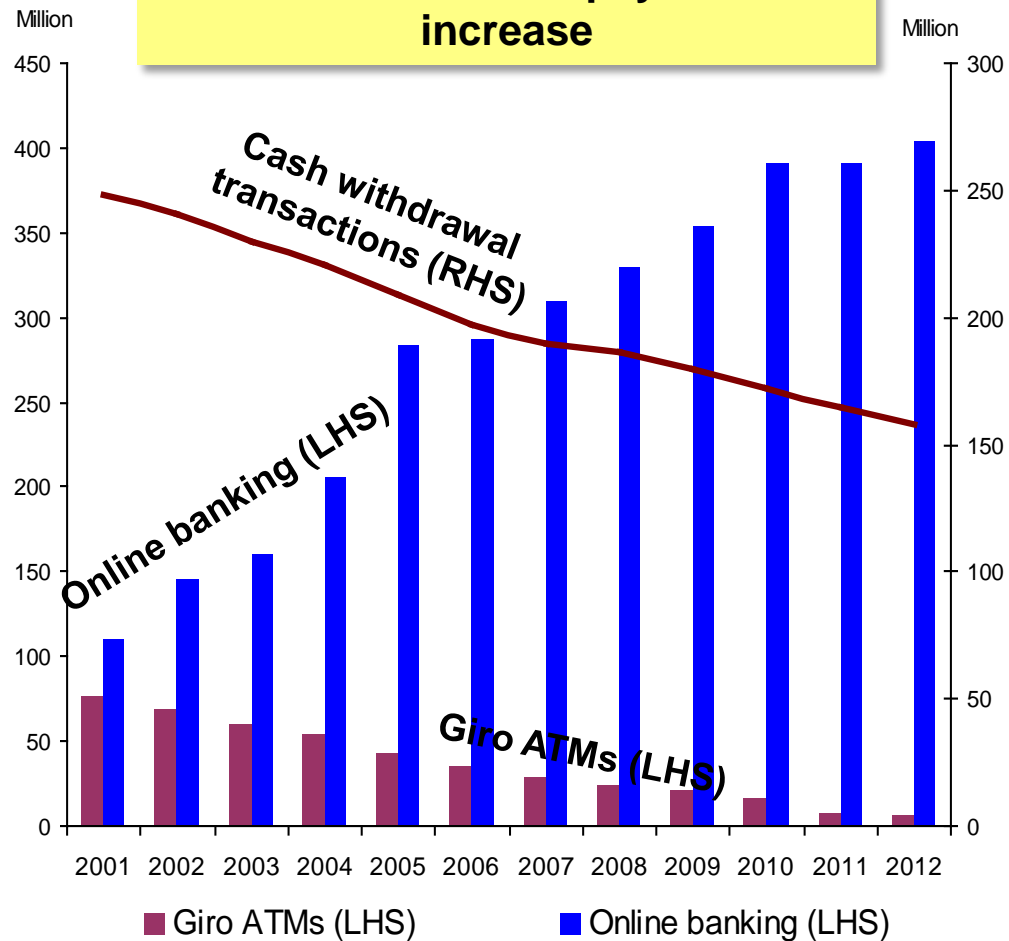
Changes in payment infrastructure in Finland



Bank branches and ATMs decline as POS terminals increase



Cash withdrawal and Giro ATMs decline as online payments increase



Source: The Federation of Finnish Financial Services



Norway's direct pricing strategy facilitated cost savings



Pre-1985

- Cheques were not directly priced and banks relied on float income
- Cheque processing cost grew to 30% of banks' total operating costs

Post-1985

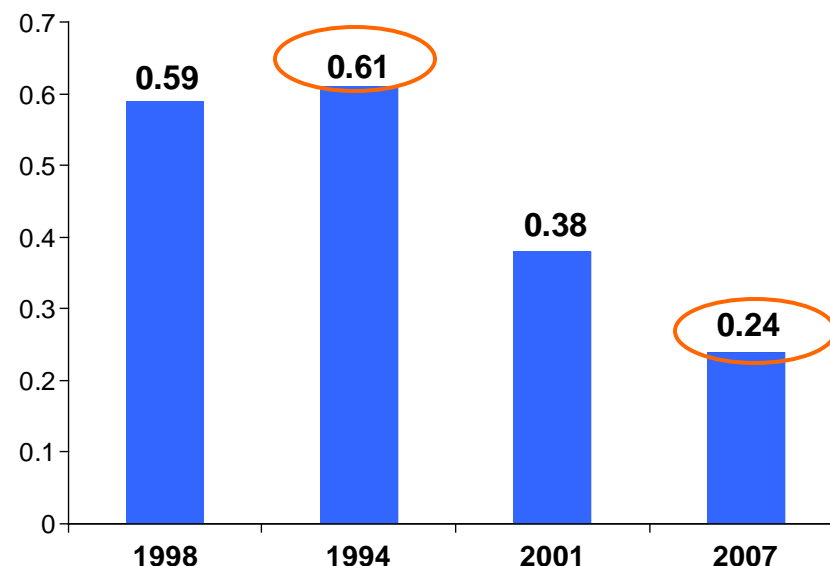
- Banks implemented direct pricing for payment services
- Cheques and other paper-based instruments decreased significantly
- Banks' cost as a share of GDP fell steadily

Prices of selected payment services (1998 – 2010)

(Prices in NOK; 1 NOK = RM0.53)

| | 1998 | 2002 | 2006 | 2010 | 2013 |
|--------------------------|----------------------|---------------|---------------|---------------|-----------------------|
| Cheque | 10.72 | 20.70 | 27.34 | 23.5 | 44.0 |
| Internet Giro | 1.98 | 1.86 | 2.06 | 1.60 | 1.30 |
| Cheque/ Internet Giro | 5.4 times | 11.1 times | 13.3 times | 14.7 times | 33.8 times |

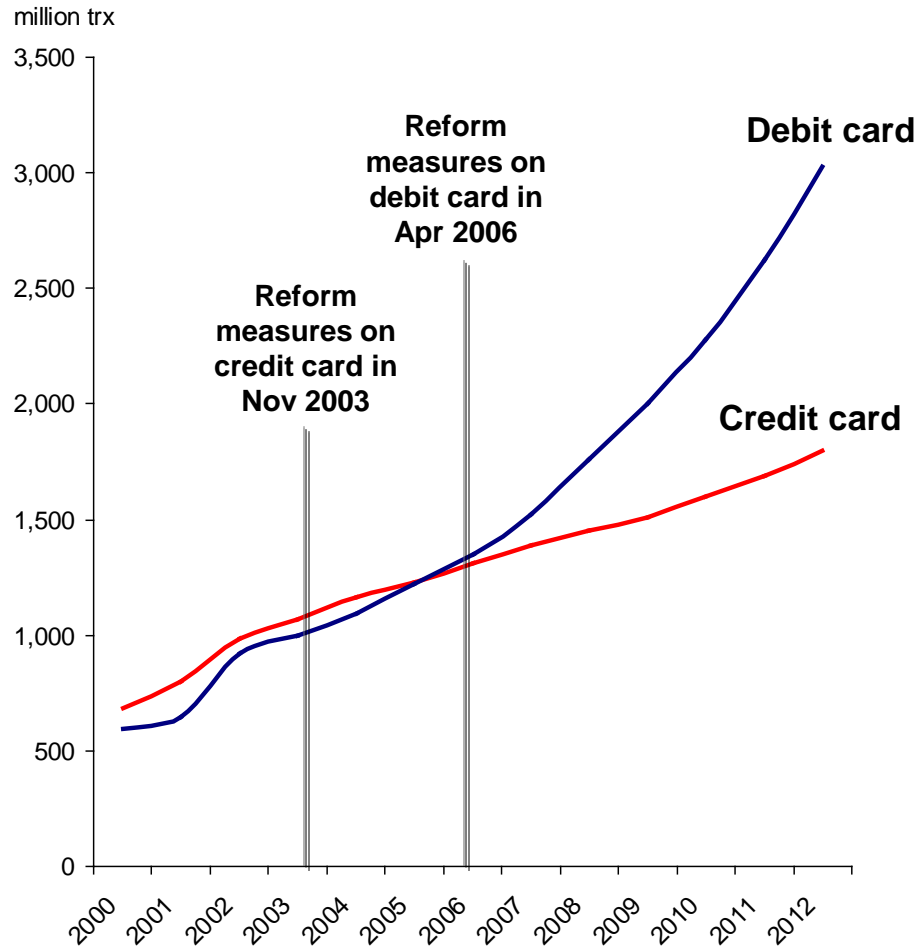
Banks' private cost as a share (%) of GDP



Australia's payment card reform led to increased use of lower-cost payment cards



Debit card transactions had grown faster than credit card post-reform



- Prior to November 2003, credit card exceeded debit card transactions due to:
 - Loyalty points given to cardholders
 - Promotion of the higher-cost credit cards over the lower-cost debit cards
- This caused Australia to have a higher-cost retail payment system than necessary.
- Reform measures had resulted in an increase in debit card over credit card transactions, thus, providing savings to the country.



Challenges for Malaysia



Despite having some positive indicators, Malaysia still lags behind in its migration to electronic payments



| Positive indicators | Negative indicators |
|---|---|
| <ul style="list-style-type: none">• High number of bank account holders• High number of internet banking subscribers | <ul style="list-style-type: none">• Low number of active internet banking subscribers• High usage of cheques |
| <ul style="list-style-type: none">• High debit card penetration | <ul style="list-style-type: none">• Credit card transactions far exceed debit card transactions• Low number of POS terminals |



Challenges

Price distortions between paper-based and electronic payment instruments.

A need to build consumer confidence in the use of online banking.

Promotion efforts focused on higher-cost credit cards instead of the lower cost debit card.

Price distortion between cheque and electronic funds transfer (EFT)



- Cheques are an expensive payment instrument to process.
 - About **RM3** to process a cheque
- Cheques are priced higher than Giro (EFT) services in most countries.

| Country | GIRO | Cheque | No. of times more expensive |
|-----------|-----------------------------|-----------------------------------|-----------------------------|
| Thailand | 12 Baht (RM1.20) | 15 Baht (RM1.50) | 1.25 times |
| Singapore | SGD0 – 0.20 (RM0 – 0.50) | SGD0.20 – 0.50 (RM0.50 – 1.20) | At least 2.4 times |
| Norway | 1.3 Krone (RM0.69) | 44 Krone (RM23.32) | 37 times |
| UK | 0 – 23p (RM0 – 1.10) | 23 – 68p (RM1.10 – 3.30) | At least 3 times |

Initiation of the Pricing Reform Measures in Malaysia

Effective 2 May 2013, online IBG has been brought down from RM2 to 10 sen

From 1 April 2014 onward, cheque fee of 50 sen would be introduced



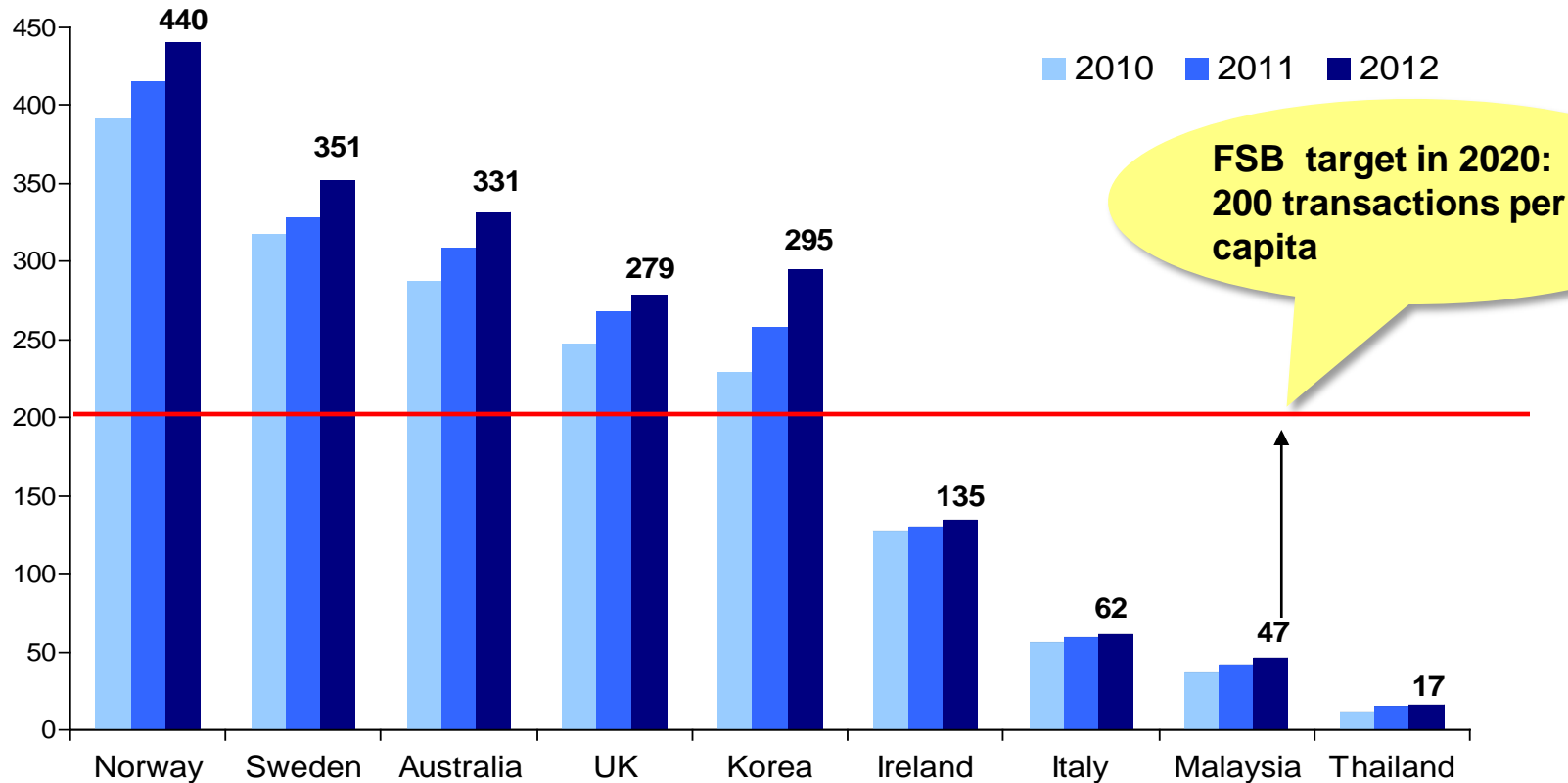
Reform Measures To Transform the Payment Landscape



Bold measures and commitment by all stakeholders are required to drive migration to e-payments



E-payment Transactions Per Capita



Note:
E-payments in the chart refer to card transactions, e-money, direct debit and credit transfer. Malaysia e-payment transactions had been adjusted to exclude internet banking, mobile banking, ATM and RENTAS third party transactions for it to be comparable with other countries



Aggressive measures needed to achieve the Malaysia's targets



| Key Performance Indicators | | 2012 | Target by 2020 | Annual Change required | Annual Δ to multiply by: |
|----------------------------|--|------|----------------|------------------------|---------------------------------|
| 1 | E-payment transactions per capita | 56 | 200 | ↑ 608 m txn | 3 times |
| 2 | Debit card transactions per capita | 1.2 | 30 | ↑ 117 m txn | 10.6 times |
| 3 | Number of EFTPOS terminals per 1,000 inhabitants | 9 | 25 | ↑ 67K terminal | 4.8 times |
| 4 | Number of cheques (million) | 204 | 100 | ↓ 13 m txn | - 13 times |

Current growth rate is insufficient for the country to achieve the FSB targets in 2020.

Several reform measures will be undertaken to accelerate the migration.

E-payments used to displace cheques and cash



- **Credit Transfers and Debit Cards have been effective in displacing cheques and cash**
 - Credit Transfers such as IBG (batch mode) and IBFT (real-time) which are initiated by the payer are cost effective substitute for cheques
 - The Debit Card is a cost effective, safe and convenient means of making payments for goods and services to displace cash usage

- **To encourage widespread adoption of e-payments, the following measures would be undertaken:**
 - Addressing distortions and correcting price signals
 - Widening accessibility
 - Enhancing security and value added services
 - Building awareness



Addressing Distortions and Correcting Price Signals



Correct price signals to incentivise the use of the more cost-effective payment instruments



- **Addressing price distortions between paper-based and electronic payment instruments**
 - Pricing reform framework to align price of payment instruments to their cost of production
 - Tiered pricing structure to encourage the use of cost-efficient payment channels
 - Price should be lowest via **Internet banking** compared to **ATM** and costlier at the **Counter** for the same payment service.

- **Addressing distortions in the payment card industry**
 - Review of the interchange fee framework
 - Merchant fees for Debit and Credit cards to be differentiated
 - The word “Debit” to be on face of Debit card to allow merchants to differentiate the type of payment cards
 - Merchants should set preference for lower cost payment card



Widening Accessibility



Widening accessibility to e-payment services



- **In addition to Internet banking, banks should leverage on their 12,000 ATMs to offer credit transfer services.**
 - Today, 18 banks provide IBFT (real time funds transfer) over their ATMs. Remaining 2 banks have committed to provide IBFT over their ATMs.
 - Banks have been encouraged to also provide IBG services via their ATMs as a lower cost option to IBFT.
 - Banks have committed to deploy 1 internet banking kiosk at each branch by March 2014.
 - Over 2,100 internet banking kiosks have been deployed so far

- **With a high penetration of 41 million debit cards, more Point of Sale (POS) terminals should be deployed.**
 - About 280,000 terminals have been deployed or 9.5 terminals per thousand inhabitants (compared to 25 in some advanced countries)
 - Bank Negara is undertaking a review of the payment card industry to facilitate accelerated deployment of POS terminals to encourage wider acceptance of debit cards for public convenience



Enhancing Security and Value-Added Services



Enhancing Security and Value-added Services



▪ Enhanced Security Features

- Migration to EMV standards for credit card (2005) and domestic debit card (2015)
- Second factor authentication
- SMS alert
- Continuous consumer awareness and education on safety measures

▪ Crediting period

- Crediting period of
 - IBFT is almost instantaneous,
 - IBG is within the day and
 - Cheques is T + 2.
- IBG clearing windows will be increased to shorten the IBG crediting time.

▪ Payment References

- Sender and payment details will be recorded in the recipient's bank statement to facilitate payment reconciliation.



Building Awareness





- In addition to today's Payment System Forum, BNM together with the ABM and AIBIM had commenced a nationwide “**Experience IBG**” roadshow to cover 12 states from October 2013 to March 2014.
 - To create awareness and provide guidance and hands-on experience to businesses to adopt internet banking and conduct electronic payment transactions.
- To complement the roadshows held in 12 major towns, ‘**Open Day**’ and **Workshop** at bank branches are held in 16 smaller towns around the country

Conclusion



It is timely to migrate to e-payments



- In line with global developments, Malaysia needs to intensify its efforts to migrate to e-payments in order to remain competitive.
- Businesses should adopt more cost-effective ways of doing business (including adopting e-payments) to improve their productivity and profitability.
- The potential for cost savings and efficiency gains is substantial.
- Successful migration to e-payments will only be possible if there are concerted efforts by everyone.



Thank you

