Tae Soo Kang
+822 759 4526
taesookang@bok.or.kr

Guonan Ma
+852 2878 7015
guonan.ma@bis.org

Recent episodes of credit card distress in Asia[1]

Not only has credit card lending in Asia grown rapidly, but also several episodes of sharp booms and busts have been experienced, posing new risks to financial stability. Policymakers need to learn more about the risks arising from this type of consumer lending and respond with appropriate prudential measures.

JEL classification: D14, G14, G23, G28.

Consumer credit in Asia has grown significantly in recent years. While housing finance has so far received the bulk of attention, smaller unsecured personal lending has also expanded rapidly. With rising affluence and a new orientation on the part of policymakers to pursue a growth path less dependent on corporate investment and exports, the credit card business has been one of the fastest-growing areas of unsecured retail finance in many Asian markets.

The levels of credit card holdings and loans in Asia have not converged smoothly to levels seen in mature markets. Rather, in this decade, Asia has witnessed several cycles of marked credit card booms and busts. This feature examines three such episodes: Hong Kong SAR in 2002, Korea in 2003 and Taiwan, China (hereafter Taiwan) in 2006. Our analysis attempts to shed light on three questions. First, why did competition in a line of business that is well established elsewhere lead to excessive credit card lending? Second, what was the character of the busts following the credit card lending booms? Third, what lessons can be learned from these episodes?

These three episodes of credit card lending booms and busts seem to share several common elements: intensified competition in the high-yield, less prime, credit card lending business leading to reduced lending standards; a rapid build-up in household indebtedness; a disproportionate concentration of debt burdens among riskier cardholders; a sudden deterioration of asset quality; and a subsequent contraction in credit card receivables. The bottom line is that, as consumer finance becomes an important part of Asia's financial

[1] The views expressed in the article are those of the authors and do not necessarily reflect those of the Bank of Korea or the BIS. The authors benefited from comments received at seminars at the BIS Asian Office and the Bank of Korea. In particular, we are grateful for comments and advice from Claudio Borio, Hanpack Chun, Heung Mo Lee, Robert McCauley, Frank Packer, Eli Remolona, Ilhyock Shim and William White, and excellent assistance provided by Hyung-Sik Kim and Andrea Tesei.

system, policymakers need to better understand the associated risks and be prepared to respond.

Asia's credit card sector

Lending to households outpaces total bank loans …

Since the 1997 Asian financial crisis, lending to households has outpaced the increase in total bank loans in most regional markets.[2] A combination of factors may have contributed to this shift to consumer finance. First, after the Asian financial crisis, weak corporate loan demand and the easing of monetary policy to spur the economy led to ample liquidity in the banking systems. During 1995–2000, the loan/deposit ratios in Hong Kong, Korea and Taiwan had declined by 15–20 percentage points. This put pressure on banks to tap the consumer finance business more aggressively. Since it had previously been neglected, such lending offered banks both potentially higher margins and diversification benefits. Second, rising living standards and house prices probably increased consumer demand for credit. Third, progress in information technology had reduced the costs of retail finance. Finally, financial deregulation, new local and foreign entrants and government policies boosted formal lending to the household sector.

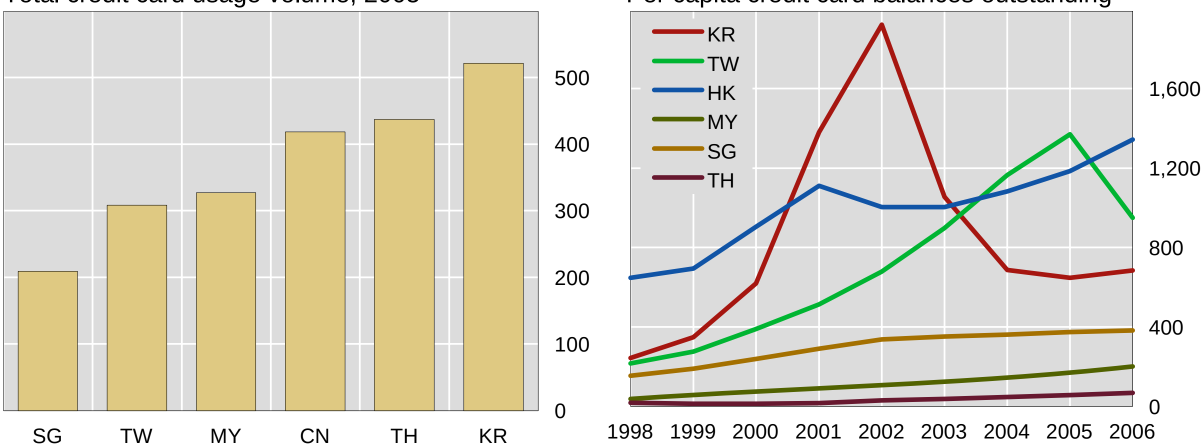
… as the credit card business expands rapidly

In particular, the credit card segment is also rapidly gaining ground in Asia (Graph 1). Total credit card usage volume, including the use of cards both to make purchases and to withdraw cash, increased by 200–500% in many Asian markets between 1998 and 2005. Meanwhile, per capita credit card balances outstanding grew by two to six times in these markets during the same

Asia's expanding credit card sector

Total usage volume and card balances outstanding

Total credit card usage volume, 2005[1] | Per capita credit card balances outstanding[2]



CN = China; HK = Hong Kong SAR; KR = Korea; MY = Malaysia; SG = Singapore; TH = Thailand; TW = Taiwan, China.

[1] Total transactions on credit cards, including card purchases and new cash lending; 1998 = 100. [2] In 2005 US dollars.

Sources: Central banks; CEIC; national data; BIS. Graph 1

---

[2] For more updated overviews of general lending to households in Asia, see Fitch (2006), S&P (2006) and Mohanty (2006). For more recent discussions of housing finance issues in Asia, see Zhu (2006) and Chan et al (2006).

Credit card balances outstanding in Asia
End-2005

	Per capita[1]	% of total loans	% of household loans	% of GDP
Korea	675	5.5	11.0	4.2
Korea (2002)	*2,006*	*21.3*	*45.1*	*14.7*
Taiwan, China[2]	1,369	6.7	14.9	8.8
Hong Kong SAR	1,181	3.3	8.2	4.6
Malaysia	168	3.0	6.1	3.4
Singapore	379	1.5	2.9	1.4
Thailand	59	2.5	14.0	2.0
Japan[3]	527	1.8	6.6	1.6
Memo: United States [4]	*2,854*	*10.5*	*37.0*	*6.8*

[1] In 2005 US dollars. [2] Includes cash card balances. [3] Both total and household loans are those from domestically licensed banks and Shinkin banks only. Credit card balances include cash card balances. [4] Household loans do not include mortgages.

Sources: Central banks; CEIC; FitchRatings; BIS. Table 1

period.[3] By 2005, credit card receivables in these markets ranged between 2 and 7% of their respective total bank loans outstanding and between 3 and 15% of total household lending (Table 1).

Credit card loans are high-yield and unsecured

Our focus is on the lending side of the credit card business.[4] Credit cards serve two primary functions: payment and financing. Accordingly, credit card users fall into two groups: "transactors", who use credit cards mostly for payment convenience, and "revolvers", who borrow regularly on their credit cards. Revolvers tend to be inherently riskier personal borrowers than transactors. Moreover, compared to other forms of household credit, credit cards represent a high-yield unsecured personal lending business, on average providing more than half of the net earnings for credit card issuers in many Asian markets. Thus, credit card lending represents new opportunities but increases risks to the financial system.

As a share of GDP, credit card balances in most Asian markets do not seem excessive when benchmarked against the United States at 7% of GDP. Nevertheless, this same measure indicates comparatively high credit card indebtedness of 15% in Korea in 2002 and 9% in Taiwan in 2005. Moreover, it is not appropriate to simply compare levels without taking into account the fact that the market is very well established in the United States but not in emerging Asia.

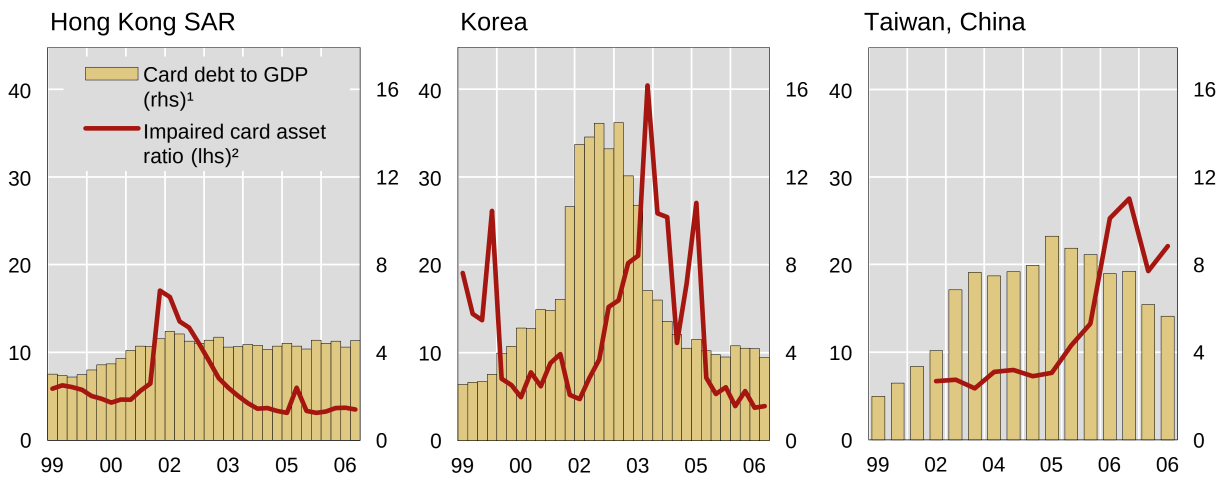
---

[3] Total credit card usage volume is the total transaction flow on credit cards, including both credit card purchases and new cash lending. In addition, unless otherwise specified, credit card debt, balances outstanding, receivables and credit card assets are used interchangeably as a stock measure of overall credit card indebtedness from both purchases and cash lending. Finally, following common practice in most Asian markets, delinquency is defined as a loan payment three months overdue.

[4] Credit card lending can be granted by issuers through revolving credit balances, instalments or cash lending including both cash advances and card loans. Therefore, we also include cards that perform only the financing function, such as "cash cards" which provide specialised cash advance services to the cardholders but are not used for purchase payments. Cash cards are particularly popular in Japan and Taiwan.

Three episodes of credit card distress in Asia

Credit card balances and non-performing credit card assets



¹ Ratio of total credit card receivables to GDP, in per cent. Credit card receivables in Taiwan include outstanding cash card balances.
² Ratio of the sum of delinquencies (three months overdue) and charge-off (annualised) over average card receivables, in per cent.

Sources: Hong Kong Monetary Authority; Korea's Financial Supervisory Service (FSS); Taiwan's Financial Supervisory Commission (FSC); authors' own estimates.

Graph 2

Two patterns of growth in credit card receivables

The expansion of credit card balances outstanding in many Asian markets has followed two distinct patterns in recent years. Credit card lending in Malaysia, Singapore and Thailand has so far shown the relatively steady growth that might characterise a smooth catch-up to the scale of such receivables in relation to household income in mature markets. In contrast, credit card lending in Hong Kong, Korea and Taiwan has in each case exhibited large swings of a boom-bust nature (Graph 2). Thus, if there is an underlying trend in these three Asian markets towards convergence to levels prevailing in mature markets, it has certainly not been smooth.

Three episodes of booms and busts in credit card lending

Large fluctuations in credit card lending such as those seen in these three markets can pose potential systemic risks and present new challenges to the region's regulators. More broadly, such lending booms and busts can be viewed as part of a more general problem involving the build-up and unwinding of financial imbalances. These patterns can have implications for the economy, financial stability and in turn the design of policies (Borio and Lowe (2002), Borio and Shim (2007)).

Three episodes of credit card lending distress in Asia

The boom and bust phases

While their specific circumstances differ, the three more volatile Asian episodes just referred to share a number of stylised characteristics. These pertain to the episodes' causes, mechanics and effects on the financial system and real economy. Of the three cases, the Korean one has been the most severe. Conceptually, it is useful to examine these boom-bust cycles in credit card lending in two phases: the boom and the bust, respectively.

The boom

Lending boom: catch-up or easier lending standards?

The boom phase was characterised by large increases in credit card lending and credit availability. Credit card debt grew at a rapid pace within a short period of time. Hong Kong's card balances increased from 3% of GDP in 1998 to 5% in 2001. Korea's outstanding credit card debt grew most rapidly, from 4% in 1999 to a peak of 15% by 2002. Taiwan was in between, with balances growing from 5% in 2002 to 9% in 2005. At the time, such credit card lending booms might have appeared to reflect no more than a catch-up process, given rising incomes and previously unsatisfied demand. In retrospect, however, they seem to have also gone hand in hand with a relaxation in the screening and lending standards of issuers amid intensified competition.

Factors are: slack in the banking system …

Five factors lay behind the relaxation of lending standards and excessive growth in credit card lending. First, as noted earlier, ample liquidity in the banking systems and lower interest rates put pressure on banks to focus more on consumer lending. In Korea, banks financed not only their own credit card operations, but also the dominant monoline credit card issuers through loans. Declines in interest rates at the time also led Korean households to seek higher yields in fixed income mutual funds of investment trust companies (ITCs), themselves overweight in paper issued by monoline credit card companies.

… liberalisation and new entrants …

Second, during financial liberalisation, there were new and often less experienced entrants contesting these markets. These new forces intensified competition among issuers for market share, leading to more relaxed lending standards and stronger credit expansion (Dell'Ariccia and Marquez (2006)). In Hong Kong, some major foreign issuers without extensive local branch networks tried to enter the credit card market through direct marketing. In Taiwan, financial liberalisation in the early 1990s doubled the number of banks in an already crowded market. These newcomers targeted the consumer banking business, doubling their market share from 28% in 1994 to 56% in 2005. In Korea, tax incentives to consumers to promote the use of credit cards prompted some chaebol, with limited consumer banking experience, to rush headlong into the game, and capture as much as 76% of domestic transactions by 2002. These changes in the competitive landscape probably led some dominant incumbents to relax their screening standards as well.

… large sunk costs …

Third, economies of scale in the credit card business may also have contributed to competition for market share. The credit card industry often involves large initial sunk costs necessary to set up the infrastructure for data processing, credit scoring, account management and settlement. Moreover, the industry needs a sufficient cardholder base to attract merchants to sign on to credit card programmes (Evans and Schmalensee (2005)). Thus, once the investment is made, the marginal cost of adding new accounts is relatively low, reinforcing the imperative to chase market share. In Korea's case, local card issuers usually do not outsource their operations, further increasing the threshold of accounts needed to break even for their credit card operations.[5] All three episodes witnessed aggressive and costly marketing

---

[5] According to an informal survey by the authors, the estimated break-even threshold of cardholders for the top five Korean credit card issuers combined is about 30 million. Setting

campaigns to recruit new cardholders through mass mailing, telemarketing and even street solicitation, with little screening.

Fourth, a generally limited credit reporting infrastructure in some markets contributed to the excessive build-up of risks in credit card lending portfolios. This was particularly the case at the time in Hong Kong and Korea, where the coverage of local credit reporting systems was limited in terms of both customer base and types of data collected (Miller (2003), He et al (2005), Jeong (2006)). In particular, some leading local issuers did not participate in the local credit reporting system. On the other hand, Taiwan's credit bureau was arguably among the most sophisticated in the world, but the boom-bust cycle occurred anyway. Amid intense competition, some Taiwanese issuers outsourced the recruitment of new cardholders to "credit card brokers" which, for a fee, helped less creditworthy card applicants to "polish up" their applications and simultaneously submit them to several issuers. This effectively bypassed the local credit reporting system.[6]

… and initially high profits on card lending

Finally, higher lending rates on a fast-growing, but not well seasoned, credit card loan portfolio initially brought about attractive net earnings. This enticed card issuers to focus still more on the card lending business. In all three cases, competition was very intense on the lending side of the business. The seasoning effect in credit card lending appears to be similar to that of corporate high-yield bonds, which tend to have low default rates in the years immediately after their issuance. Thus, card issuers tend to record much higher yields initially from card lending, unless they provision explicitly for the losses expected later. In Korea, cash advance fees and interest charges exceeded 20%, compared to the prevailing unsecured personal loan rates of 6–7%.[7] During the Korean lending boom, the share of cash lending in total credit card assets approached 65%, as the sector's average return on equity reached 40% (Graph 3).

Market competition moves down the credit ladder

All five factors worked to heighten the risks of relaxing lending standards. Through either an understatement of the rules involved or the knowing acceptance of greater risks, the result was excessive lending and riskier credit card lending portfolios. Moreover, in addition to generally easier loan standards, there was a deliberate strategy to target the market for less prime and higher-yielding "revolvers". Thus, competition for market share started moving down the credit spectrum. As a consequence, the composition of the cardholder base changed markedly, leading to larger and higher-risk card lending portfolios. In Taiwan, the outstanding balance of cash card holders,

this threshold against the fact that there are around 20 Korean credit card issuers and a total working population of 25 million indicates keen competition for market share in Korea.

6 Taiwan's credit reporting system (the Joint Credit Information Centre (JCIC)) was further undermined by the reported beggar-thy-neighbour behaviour of some card issuers, which encouraged delinquent borrowers to apply for new credit cards from other banks so as to repay their existing card debts in exchange for not reporting their delinquencies to the JCIC.

7 In Hong Kong, banks' net interest margins on mortgage lending were squeezed at the time, making card lending relatively more attractive (He et al (2005)). In Taiwan, industry players estimate that net interest margins on card loans were at least four times higher than those on corporate lending.

who are mostly revolvers and thus riskier on average than credit card holders, amounted to half of credit card receivables by late 2005. This compared to only one quarter in mid-2004 (Graph 3). In Korea, LG Card, a leading local issuer, found that 70% of its bad loans came from card lending extended to accounts acquired during 2000–01, when the number of credit cards more than doubled.

As commonly happens with the boosting of credit to households, aggregate spending received a boost as well. Korea's private consumption expenditure as a share of GDP jumped from 48% in 2000 to 55% in 2002, as rapid credit card lending allowed Korean households to smooth consumption, helping to lift the economy out of the 1998 recession brought about by the Asian financial crisis (see the section on Korea). By comparison, for Hong Kong and Taiwan, the effects of credit card lending on personal consumption were less pronounced.

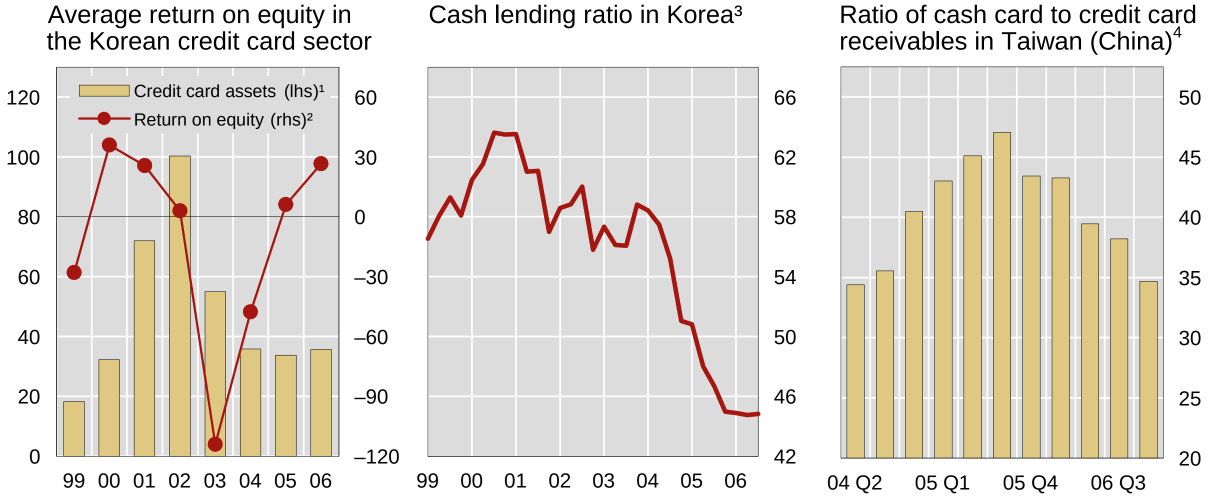
The bust

Overleveraged debtors start to default

The second phase of the cycles began with the recognition of excessive indebtedness, amid rising delinquencies. This resulted in tighter lending standards, contractions of credit, and prolonged balance sheet adjustments, affecting the real side of the economy.

Though increasing credit lines kept the lending boom going for a while, eventually some overstretched card borrowers hit limits. In addition, as card portfolios became more seasoned, delinquency and subsequently credit costs rose, due to mounting provisions and charge-off expenses, which squeezed cash flows and profit margins. Before long, card issuers sensed trouble and became more cautious in extending credit lines to riskier card borrowers. Moreover, they trimmed lending in some cases, further tightening credit availability.

Profitability and the card lending business in Korea and Taiwan (China)



[1] Total assets under management, in trillions of won. [2] In per cent. [3] Sum of cash advances and card loans over total credit card assets outstanding, in per cent. [4] Ratio of total cash card balances outstanding to total credit card receivables, in per cent.

Sources: Korea's FSS; Taiwan's FSC; CEIC.

Graph 3

Tighter credit in turn further pushed up delinquencies among overleveraged borrowers. This resulted in a scenario similar to a credit crunch, that is, a situation where credit contraction and a deterioration in asset quality tend to reinforce each other. These adverse dynamics are captured by both the rapid declines in credit card balances and sharp spikes in the impaired asset ratio, which is the sum of delinquencies and charge-offs over credit card receivables (Graph 2). In the two years following their respective peaks, Korea's credit card receivables fell by 65%, compared to a decline of 30% in Taiwan but only 10% in Hong Kong.

Adverse dynamics of contracting credit and rising delinquencies

In response to early signs of asset quality deterioration, the initial policies took the form of tighter administrative and regulatory measures, especially in the case of Korea. These policies included an intensification of the consultations between the regulators and local issuers over best practice guidelines for credit card operations and credit reference agencies. Examples included the establishment of a more inclusive credit reference agency in Hong Kong (He et al (2005)) and stronger write-off and disclosure requirements in Taiwan. In response to emerging signs of stress, the Korean authorities first upgraded credit card asset classification standards, strengthened provision requirements, started applying prompt corrective action to standalone card issuers, and then raised their minimum capital adequacy ratio from 7% to 8%. The Korean authorities also banned aggressive marketing practices, introduced a new rule requiring a cap on cash lending balances of below 50% of total credit card assets by a specified deadline, and applied pressure to credit card companies to lower their interest charges. While no doubt healthy from a longer-term perspective, in the shorter term some of these measures risked additional contractionary effects on credit card issuers and borrowers, thereby exacerbating the credit crunch.

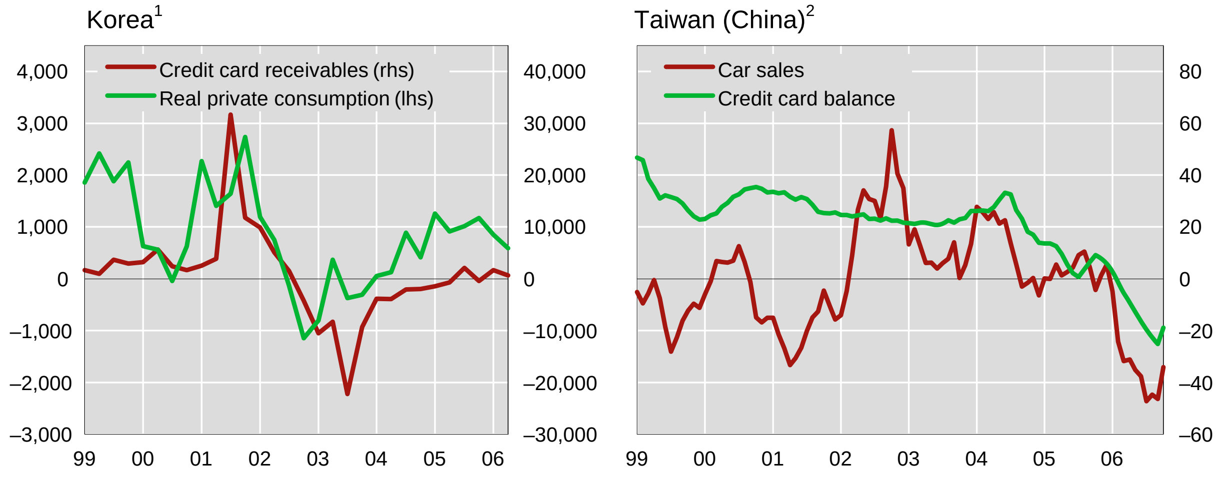
Policy responses initially involve tightening the rules …

In each case, as the situation worsened, policy interventions shifted more towards crisis management, often in the form of regulatory forbearance for issuers and debt rehabilitation for overleveraged cardholders. All three cases witnessed some form of personal debt workout programmes or procedures. The authorities in Hong Kong endorsed the workout guidelines proposed by the local bankers' association. In Taiwan, to facilitate renegotiation between issuers and multiple-card debtors, the authorities initiated a personal debt restructuring programme, covering 30% of total card balances. One third of the restructured debtors were reportedly performing at the time, but enrolled in the programme nevertheless to take advantage of better repayment terms.[8] Some restructured loans were immediately reclassified as performing, effectively granting issuers regulatory forbearance. In Korea, the authorities reversed some earlier tough measures and allowed issuers to roll over delinquent credit

… but later shift to crisis management

8 Taiwan's debt restructuring programme offered lower interest rates of 3–4% compared to the prevailing card lending rates of 16–20%, and longer repayment periods of seven to eight years compared to three years normally. The programme might help ward off other more questionable measures proposed at the time. In Hong Kong, a more forgiving personal bankruptcy regime was introduced before the local credit card problems arose. In Korea, a "credit counselling and recovery service" programme was set up to facilitate debt rescheduling.

Credit card lending distress and consumption



[1] Quarterly change, in billions of won. Real private consumption is seasonally adjusted. [2] Year-on-year changes, in per cent.

Sources: Bank of Korea; Korea's FSS; Taiwan's FSC; CEIC. Graph 4

card loans, a practice known as "re-ageing". This eased the burden of provisions and charge-offs on issuers, thus also providing regulatory forbearance.

One third of card loan books were probably written off

The effects of these credit card lending boom-bust episodes on the financial system varied, depending on the scale of the initial excess, but in each case the damage remained manageable. Leading issuers suffered heavy losses from their card lending business. It is estimated that about one third of the entire card lending books at their peaks eventually had to be written off in the wake of these credit card stresses. The lending boom in Korea was the most spectacular; so was its subsequent bust. Although credit card lending normally amounted to less than 10% of the total loan books in these banking systems, Korea's credit card balances for both bank and monoline issuers were equivalent to as much as one fifth of total bank loans outstanding at the peak of the boom. Moreover, commercial banks were themselves heavily exposed to monoline credit card issuers. As of March 2003, Korean commercial banks' lending to the troubled LG Card was KRW 11.2 trillion, or 38% of the creditor banks' combined equity. Credit card debt distress even led to disruptive contagion in Korean financial markets (see the next section), contributing to a weakening in corporate capital spending into 2004.

Contracting credit affects consumer spending

Finally, rising delinquencies impacted negatively on the real economies concerned, mostly via weakened consumer spending. Worsening asset quality, funding difficulties and tougher regulations reinforced credit contractions and led to a credit crunch in some cases. The more disorderly unwinding in Korea visibly led the private consumption downturn in 2003 (Graph 4). By contrast, credit card woes in Hong Kong were overshadowed by the protracted local asset price deflation at the time (Lai and Lam (2002)) and seemed to have mainly dampened the spending on big-ticket items in Taiwan after 2004.

The Korean credit card crisis in 2003

A still closer examination of the Korean case highlights three points. First, government policies played a more prominent role at the start of the lending boom than in other countries. Second, since the monoline card issuers dominated the local industry, in contrast to other Asian markets, the credit card crisis spilled over into the capital market. Finally, the crisis involved institutional support for a troubled leading credit card issuer that was not a bank.

Government policy is a key trigger to the card lending boom

Government policies designed to cushion the downturn after the Asian financial crisis contributed in significant measure to the Korean credit card lending boom of 1999–2002. The policy package put in place included tax benefits for merchants accepting credit cards and income tax deductions linked to credit card purchases made by cardholders. On the regulatory front, the authorities abolished the ceiling of KRW 700,000 ($610) on monthly cash advances and removed the limit of the leverage (up to 20 times capital) on credit card issuers. Moreover, the weighted regulatory capital requirement for the specialty issuers was only 7%, despite the inherently undiversified nature of their unsecured credit card lending business. [9] In response, the market grew rapidly in 1999–2002, with the number of credit cards rising from 40 million to 100 million and credit card assets expanding fivefold (Graph 4).

Korean business model adds to the severity of distress

The business model adopted by Korean credit card issuers had also helped shape the dynamics of the local credit card lending distress. This was mainly because of interactions between asset quality deterioration and funding difficulties (Graph 5). Specialised credit card service providers dominated the Korean market but were prevented by regulation from deposit-taking. Thus, during the boom, monoline issuers funded the credit expansion by tapping into the capital market, with many of the papers they issued being purchased by ITCs. But as their card portfolios began to turn sour, investors, spooked by an accounting scandal at SK Global in March 2003, rushed to pull their investments out of ITC-managed funds. Panic redemptions even forced ITCs to sell their government bond holdings, as liquidity in the secondary corporate bond markets disappeared (Remolona and Wooldridge (2003), Lee and Kim (2005)). In a matter of two weeks, the outstanding value of the ITC-managed funds fell by 15%. Funding difficulties forced some issuers to cut their lending to cardholders, further pushing up delinquencies and further hurting the confidence of bond investors.

Rescues are controversial …

As the turmoil spread to the bond market, policy intervention came more to resemble a set of crisis management operations. This policy change was a response to the perception of higher systemic risks, though the extent to which a problem existed remains a matter for debate. Policymakers also shifted their tactics over time, opting to intervene by providing liquidity support to both the market in general and to credit card issuers in particular. They also arranged a

[9] The measures described were also part of a broader financial deregulation and intended to stimulate consumption, enhance tax collection and limit the informal loan market. There is some evidence that tax incentives in particular increased the adverse selection problem faced by credit card issuers (Lee (2005)).

rescue of the failing LG Card, which aroused controversy because of the possible moral hazard implications (Coulton (2005)).

... and extensive

The scale of these operations was considerable. In the wake of the March 2003 bond market sell-off, the Bank of Korea injected substantial liquidity through open market operations. The government also persuaded domestic investors to roll over the matured debts of credit card companies and not to exercise their put options in credit card asset-backed securities. Finally, the authorities pressured the majority shareholders of troubled credit card companies to inject capital, suspended the trading of LG Card bonds, directed a state-owned bank to extend credit to LG Card, and eventually coordinated a process of debt-equity swaps to ensure the joint control of LG Card by the creditor banks in 2004.

Lessons learned and policy implications

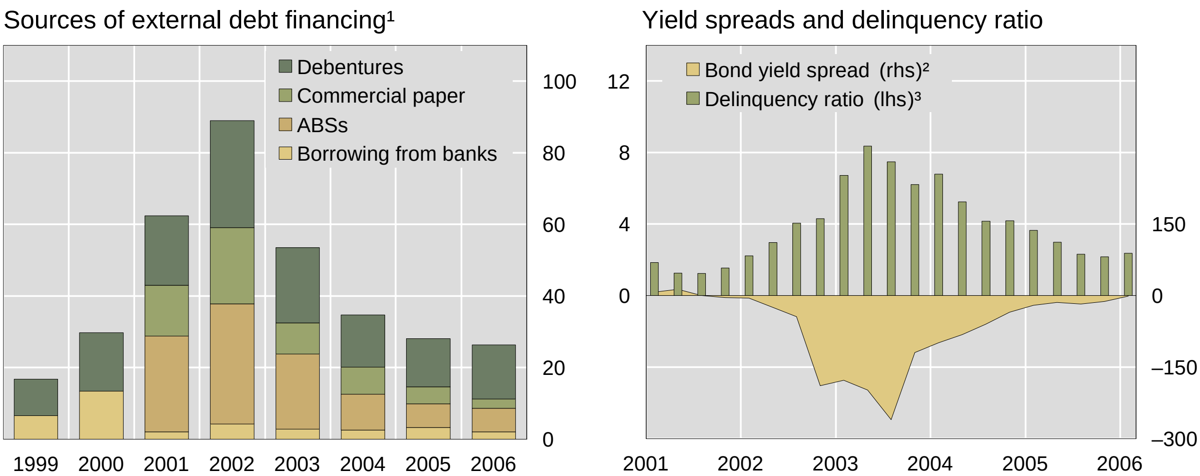
On-site examinations can detect early signs of trouble

These three episodes of credit card lending distress point to a number of lessons. First, the episodes highlight the importance of placing greater emphasis on detecting early warning signs before imbalances build up excessively. Admittedly, it is a challenge to sound the alarm bell when profits are on the up, amid a lending boom, but reasonable average debt/GDP ratios and low initial losses should not give rise to complacency. Even from a low base, the rapid growth in indebtedness itself can pose new risks, especially during periods of structural change. Nor should a benign economic environment lead to the conclusion that a consumer debt crisis will not occur. Moreover, given the time lags in data collection, problem recognition, and the policy response, there is probably a need to strengthen the capacity of policymakers to conduct on-site examinations.

Enhancing information flows

Second, governments can help enhance the provision of information in the consumer credit market. For example, to mitigate information asymmetries

Funding structure and asset quality of Korean credit card companies



[1] Year-end amount outstanding, in trillions of won. [2] Benchmark corporate yields less credit card company bond yields, in basis points. [3] Three months overdue, in per cent.

Sources: Bank of Korea; Korea's FSS. Graph 5 between lenders and borrowers, credit information sharing should be encouraged.[10] Moreover, timely disclosure of issuer information could help the financial market exercise its disciplinary role. In addition, with a wider population being offered access to credit cards, better consumer education may help contain misuse. Nevertheless, the episode in Taiwan suggests that credit reporting itself is no guarantee of safety and that careful consideration should be given to how best to maintain the integrity of credit information sharing and reporting systems.

Earlier and stronger prudential measures in times of transition

Finally, policymakers may find it helpful to upgrade their prudential and supervisory frameworks during the liberalisation process. Some guidelines on best practice and income tests for credit limits and minimum repayment requirements, often informally put in place through local bankers' associations, can be useful during difficult transition periods if they are deployed pre-emptively. Forms of such restrictions have been strengthened or reintroduced in some Asian markets following the recent episodes of distress.[11] Other regulations may be more ambiguous in their effect. For instance, excessively binding legal ceilings on credit card lending rates may drive some borrowers away from the formal sector and weaken issuers' ability to absorb shocks in the face of distress.[12]

Conclusions

This decade has witnessed episodes of credit card lending booms and busts in some Asian markets. The boom phase of these cycles is often associated with competition for market share, laxer lending standards, excess credit expansion and adverse selection; the subsequent bust phase is sometimes exacerbated by the adverse dynamics of contracting credit and moral hazard.

With deregulation and growing consumer finance, policymakers need to appreciate the risks arising from consumer lending and put in place appropriate prudential and supervisory measures to contain risks. Policymakers need to deploy these measures pre-emptively, ahead of anticipated structural changes and deregulation, as well as lay greater emphasis on both identifying indicators of excessive credit growth and reacting to them. Credit bureaus can help, but careful attention must be paid to their structure and operations, as well as to the incentives needed to maintain their integrity.

---

[10] Since the recent episodes of distress, credit reporting in both Hong Kong and Korea has improved. Three private credit bureaus are now competing against each other in Korea, and a specialised consumer credit information service providing negative and positive information about borrowers is operating in Hong Kong (He et al (2005)). Even in Taiwan, the local system has been refined and enhanced after the recent credit card lending boom and bust.

[11] Possibly drawing lessons from the Korean experience, and in response to an acceleration in local credit card lending, Thai regulators introduced formal guidelines on credit card operations in 2002 and tightened them in 2004 (Watanagase (2005)).

[12] Lower credit card lending rates may attract less creditworthy or less profitable borrowers because of information asymmetries, and search and switch costs, thus hurting the net earnings of card issuers (Ausubel (1991), Calem and Mester (1995)). Legal ceilings on interest rates on consumer finance range from 20% in Taiwan and 40% in Korea to 60% in Hong Kong. See also Yun (2004) for a discussion of the Korean experience.

References

Ausubel, L (1991): “The failure of competition in the credit card market”, *American Economic Review*, 81 (1), pp 50–81.

Borio, C and P Lowe (2002): “Assessing the risk of banking crises”, *BIS Quarterly Review*, December, pp 43–54.

Borio, C and I Shim (2007): “What can (macro-)prudential policy do to support monetary policy?”, paper presented at the Bank of Thailand, and *BIS Working Papers*, forthcoming, Basel.

Calem, P and L Mester (1995): “Consumer behaviour and the stickiness of credit-card interest rates”, *American Economic Review*, 85 (5), pp 1327–36.

Chan, E, M Davies and J Gyntelberg (2006): ”The role of government-supported housing agencies in Asia”, *BIS Quarterly Review*, June, pp 71–83.

Coulton, B (2005): “The global perspective on the Korean economy”, *A New vision and strategy under changing leadership in Northeast Asia*, Korean Development Institute, Seoul, pp 50–55.

Dell’Ariccia, G and R Marquez (2006): “Lending booms and lending standards”, *Journal of Finance*, 61 (5), pp 2511–46.

Evans, D and R Schmalensee (2005): *Paying with plastic: the digital revolution in buying and borrowing*, MIT Press, Cambridge, Massachusetts.

Fitch Ratings (2006): *Managing growth – the challenge of consumer lending in Asia*, 7 March, Hong Kong.

He, D, E Yao and K Li (2005): “The growth of consumer credit in Asia”, *Hong Kong Monetary Authority Quarterly Bulletin*, March, pp 13–21.

Jeong, H (2006): “A study on the mechanism for sharing credit information”, *Economic Papers*, 9 (1), Bank of Korea, pp 186–204.

Lai, K and R Lam (2002): “The nexus of consumer credit, household debt service and consumption”, *Hong Kong Monetary Authority Quarterly Bulletin*, November, pp 35–48.

Lee, K (2005): “Risk in the credit card industry when consumer types are not observable”, *Research Paper*, no 05-03, KDI School of Public Policy and Management, May.

Lee, M and S Kim (2005): “Developing the corporate bond market: the Korean experience”, in “Developing corporate bond markets in Asia”, *BIS Papers*, no 26, pp 96–113.

Miller, M (2003): *Credit reporting systems and the international economy*, MIT Press, Cambridge, Massachusetts.

Mohanty, M (2006): “Banks and aggregate credit: what is new?”, in “The banking system in emerging economies: how much progress has been made?”, *BIS Papers*, no 28, pp 11–40.

Remolona, E and P Wooldridge (2003): "A depositor run in securities markets: the Korean experience", *BIS Quarterly Review*, June, p 10.

Standard & Poor's (2006): *Banking industry country risk: the Asian picture*, 26 June, Singapore.

Watanagase, T (2005): "The future of cards and payments: a regulator's perspective", speech at "Cards and Payments: Asia Pacific 2005 Conference", http://www.bot.or.th/bothomepage/General/PressReleasesAndSpeeches/Speeches/english_version/Governor&DeputyGovernor/21Sep05_Cardpayments_Tarisa.pdf.

Yun, S (2004): "Impact of direct regulation on the Korean credit card market and consumer welfare", *Economic Papers*, 7 (1), Bank of Korea, pp 141–59.

Zhu, H (2006): "The structure of housing finance markets and house prices in Asia", *BIS Quarterly Review*, December, pp 55–69.