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The credit card report
Credit card use and debt in Singapore
July 2004



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Welcome

On behalf of Visa International Asia Pacific, I am pleased to present a new research publication, "Credit card use and debt in Singapore".

This report was created to build and share knowledge of the Singapore credit card market within public policy circles and the wider community. The Singapore credit card market has experienced significant growth in recent years. This growth has raised concern among some observers about the potential for a 'credit bubble', a situation in which consumers take on unsustainably high levels of debt that they cannot readily repay.

Visa International currently accounts for a majority of the Singapore credit card market and takes community concern about the sustainability of credit card debt very seriously.

Visa believes that a wider range of data and indicators are required to have better analysis of credit card use and debt in Singapore. This publication is an important part of Visa's commitment to providing information to the wide variety of organizations and individuals that have an interest in this area on an ongoing basis. We believe that it will facilitate a more fully informed debate and understanding of the role of credit cards in people's lives and their contribution to the economy as a whole.

We will continue to work with our member banks, merchants and regulatory bodies to ensure that Singapore benefits from an efficient modern payments system.

Dennis Ng
Country Manager Singapore
Visa International

If you have any feedback on this publication please email apcorpcom@visa.com

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Contents

Highlights	1
1 Introduction	2
2 Credit card take-up in Singapore	3
2.1 Number of cards	3
2.2 Number of accounts	4
2.3 Number of merchants accepting Visa credit cards	5
3 Credit card use in Singapore	6
3.1 Number of credit card transactions	6
4 Credit card spend in Singapore	7
4.1 Total spend on credit cards	7
4.2 Average spend per account	8
4.3 Average spend per card	8
4.4 Average spend per transaction	9
4.5 Credit card spend relative to GDP	9
4.6 Credit card spend relative to household consumption	9
5 Credit card repayments in Singapore	10
5.1 Total repayments	10
6 Credit card debt in Singapore	12
6.1 Total outstanding balances	13
6.2 Average balance per account	13
6.3 Credit card balances relative to spend	13
6.4 Credit card debt relative to limits	14
6.5 Balances attracting interest	14
6.6 Affordability of credit card debt	15
6.6.1 Delinquency rates	16
6.6.2 Default rate	16
6.6.3 Credit card net losses	17
6.6.4 Credit card balances relative to household income	18
6.6.5 Credit card balances relative to GDP	18
7 Visa debit cards	19
8 The way forward	20
Glossary of key terms	21
Charts and tables	22

Highlights

There are 3.4 credit cards for every household in Singapore. Even so, the credit card market is growing. During 2003, the number of credit cards in Singapore increased by 8.4 percent to 3.5 million by the end of the year. Nearly 60 percent of these cards carry the Visa brand.

Available indicators of credit card affordability suggest that the vast majority of Singaporean credit cardholders are able to manage their credit card debt well. For instance:

- In 2003, repayments were equivalent to 103 percent of spending (Visa data)
- In Q4 2003, the average balance attracting interest per account was the lowest recorded (in inflation-adjusted terms) since Q3 2000
- In the year to Q4 2003, growth in household income exceeded growth in aggregate revolving credit card debt
- Net credit losses remain less than 2.5 percent of revolving credit card debt
- Credit card default rates, which closely follow movements in the unemployment rate, are increasing but remain under five percent

Households have been increasing their use of credit cards so that by the end of 2003, credit card spend was equivalent to 21.6 percent of total household consumption. This increased reliance on credit card spend is consistent with the fact that electronic payment methods in Singapore, as in other developed economies, are highly popular. This popularity stems from government policy supporting the development of electronic payment methods as well as the fact that the debit card network in Singapore is well developed.

During the three months of Q4 2003, the average Visa credit card account holder:

- Had 1.4 credit cards linked to his/her account
- Made 10 transactions per account
- Spent S\$1,450 on a range of goods and services – S\$26 less than the average spend per account in Q4 2002 after adjusting for the impact of inflation.
- Repaid S\$1,446 per account
- Was left with an interest-bearing credit card debt of S\$1,010



1 | Introduction

There has been growing concern in Singapore about the sustainability of credit card usage and debt following the release of official statistics by issuing banks indicating rising debt levels, increasing credit card debt write-offs and higher default rates.

The rise in default rates has been associated with relatively high levels of unemployment. This has resulted in heightened apprehension among some about the ability of cardholders, particularly low income, young and unemployed cardholders, to manage their credit card spending and service their debt smoothly.

The Singapore Government, through the Monetary Authority of Singapore (MAS), has recently responded to concerns about the sustainability of credit card usage and debt by announcing restrictions on the marketing of credit cards through street solicitation. Card issuers may no longer accept card applications at street promotions, which were a popular method of canvassing for new customers in what is considered a highly developed credit card market.

The new measures were adopted despite there being no evidence of a causal link between credit card default rates and such marketing practices. Nonetheless, MAS' intervention in the credit card market is seen as a prudent measure to help Singaporeans avoid becoming overburdened with credit card debt.

Visa International (Visa) aims to ensure that community debate and regulatory action are assisted by access to comprehensive information. It is with this in mind that Visa has engaged Network Economics Consulting Group (NECG) to prepare the first in a series of reports designed to raise awareness of the facts underpinning credit cardholder behavior and outcomes.

This report provides a comprehensive analysis of recent trends in credit card usage and debt. The analysis draws on data that is publicly released by MAS, internal data provided by Singapore card issuers to Visa through quarterly data submissions, and data published by the International Monetary Fund (IMF) and the Singapore Department of Statistics.

The report is presented in eight sections. Sections 2 and 3 investigate recent trends in credit card take-up and use in Singapore. Section 4 examines credit card spend and Section 5 explores credit card repayment behavior in Singapore. Section 6 examines trends in credit card debt levels and debt affordability. Section 7 presents some recent trends in Visa's debit product, and an analysis of recent movements in electronic payment methods. Section 8 presents concluding remarks and comments on the way forward.



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2 | Credit card take-up in Singapore

This section describes recent trends in credit card take-up in Singapore. It draws on data from MAS and Visa concerning the number of credit cards in circulation and the number of credit card accounts.

Key points

There were 3.5 million credit cards in circulation in Singapore as at the end of 2003. This is equivalent to about 3.4 cards per household.¹

The number of credit cards in Singapore increased by 8.4 percent during 2003.²

Of the credit cards in circulation, 57 percent are Visa credit cards.

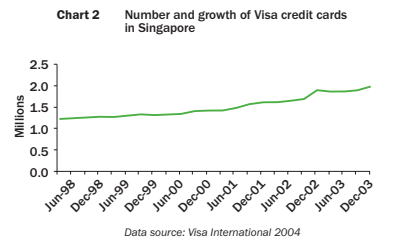
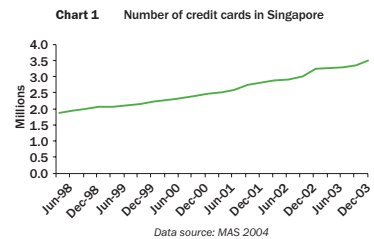
Visa and MAS data indicate that there were about 1.4 cards per credit card account at the end of 2003.

Some 33,047 merchants in Singapore accepted Visa credit cards as at the end of 2003 - up 3,325 from the previous year.

2.1 Number of cards

There has been steady growth in the total number of credit cards in circulation in Singapore since 1998 (see Chart 1). During 2003, the number of credit cards grew by 8.4 percent to 3.5 million. This is equivalent to about 3.4 credit cards per household.³

As at the end of 2003, 2.0 million or 57 percent of credit cards in Singapore carried the Visa brand. The number of Visa credit cards in circulation increased by 4.5 percent during 2003 (see Chart 2).



¹ MAS Data and NECG projections based on Singapore Department of Statistics 2000 household data.

² MAS Data.

³ MAS Data and NECG projections based on Singapore Department of Statistics 2000 household data.

2.2 Number of accounts

According to MAS guidelines, in order to be eligible for a credit card account, individuals in Singapore must be 21 years of age or older and earn an annual declared income in excess of S\$30,000. Furthermore, there are many users of credit cards in Singapore who have access to a credit card account but do not satisfy these eligibility rules because they are part of a household where at least one member of the household is eligible for, and owns a credit card.

Based on information obtained from the Singapore Department of Statistics census there are projected to be 730,000 residents, (which is around 20 percent of the projected residential population), who will earn equal to or in excess of S\$30,000 per annum as at the end of 2004.⁴ The Ministry of Manpower in Singapore estimates that there will be 70,000 employment pass holders in Singapore who will earn in excess of S\$30,000 as at the end of 2004. Combining this information, there are an estimated 800,000 eligible credit cardholders in Singapore as at the start of 2004 – about 18 percent of the population.

Households typically manage their credit card spend and debt on an account rather than on a card basis. Where there is more than one card issued per account, cardholders typically coordinate and make joint decisions about their level of spending, repayments and revolving debt.

Access to a line of credit and the benefits of electronic payment are not the only reasons for holding multiple cards. Singapore households may have multiple cards simply because there are benefits such as discounts and access to promotions that may be offered through one credit card but not another. This is an area of intense competition between card issuers in Singapore.

Both Visa and the MAS collect information on the number of credit card accounts as well as the number of cards in circulation. As at the end of 2003 there were on average 1.4 credit cards in circulation per account according to both Visa and MAS data. The number of credit card accounts in total grew by 11 percent during 2003 to 2.5 million (see Chart 3), and the number of Visa credit card accounts grew by 5.3 percent to 1.4 million over the same period. (see Chart 4). Using the estimated number of eligible cardholders data presented here, the number of accounts information suggests that there were around 3.1 credit card accounts per eligible credit cardholder as at the end of 2003.

Chart 3 Number of credit card accounts in Singapore

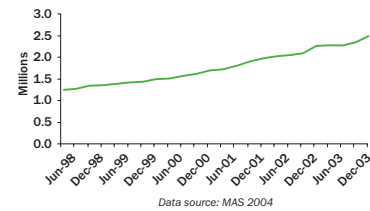
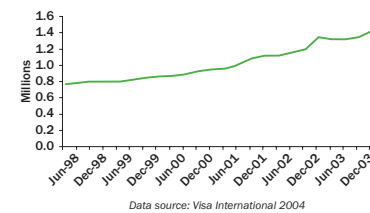


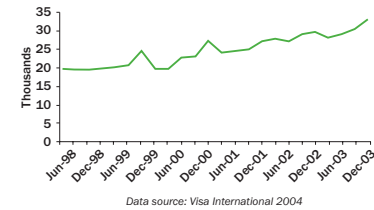
Chart 4 Number of Visa credit card accounts in Singapore



⁴ Singapore Department of Statistics 2004.

There are an estimated 800,000 eligible credit cardholders in Singapore

Chart 5 Number of merchants accepting Visa credit cards in Singapore



2.3 Number of merchants accepting Visa credit cards

Growth in the number of credit card accounts and cards in circulation is generally positively correlated with growth in the number of merchants accepting credit cards. In 2003 the number of merchants accepting Visa credit cards increased by 11.2 percent to 33,047 (see Chart 5).



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3|Credit card use in Singapore

This section profiles credit card use in Singapore in terms of the number of credit card transactions. It draws on Visa data as MAS does not report transaction data.

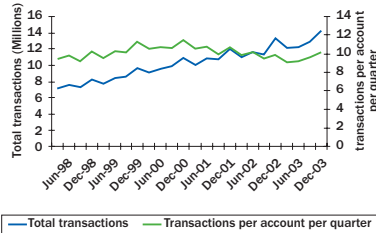
Key points

The total number of transactions on Visa credit cards increased by 7.6 percent Q4 2003 to 14.3 million.

The total number of transactions in 2003 translates to an average of 10 transactions per account.

The average number of transactions per account has fluctuated between 9 and 12 transactions per quarter since the start of 1998.

Chart 6 Number of Visa credit card transactions and average number of transactions per account in Singapore, quarterly data



Data source: Visa International 2004

3.1 Number of credit card transactions

MAS does not report transaction data, however Visa data reveals that there has been strong growth in the number of credit card transactions in Singapore.

The total number of transactions made using Visa credit cards increased by 7.6 percent over the year ending during 2003 to 14.3 million (see Chart 6). This growth is largely attributable to an increase in the number of Visa accounts (i.e. an increase in 'penetration'). Over the past year, the average number of transactions per account has increased slightly, but it has been relatively stable over a longer timeframe, fluctuating between 9 and 12 transactions per quarter.⁵

⁵ In the absence of information about the number of credit card accounts that are active, it is assumed here that all accounts are active.



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4|Credit card spend in Singapore

This section profiles credit card spending in Singapore drawing on MAS and Visa data. All time-series comparisons of spend make adjustments for the impact of inflation over the relevant period.

Key points

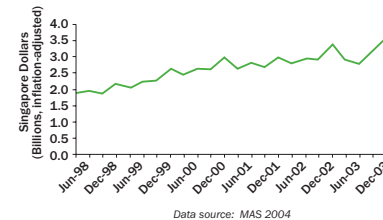
Credit cardholders collectively spent S\$3.6 billion using their credit cards in Q4 2003. This is 8.7 percent greater than credit card spend in Q4 2002 in inflation-adjusted terms.

Average spend per account was S\$1,450 for Q4 in 2003. This is S\$26 less than Q4 2002 in inflation-adjusted terms.

Average spend per card increased by just 0.3 percent in inflation-adjusted terms during 2003 to S\$1,040 per card.

Households are increasingly using credit cards to pay for their spending. By Q4 2003 credit card spend was equivalent to 21.6 percent of total household consumption.

Chart 7 Total credit card spend in Singapore

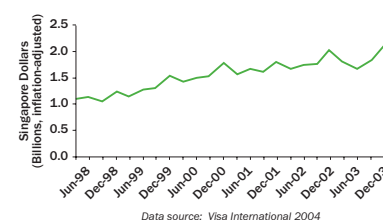


Data source: MAS 2004

4.1 Total spend on credit cards

Singapore credit cardholders collectively spent S\$3.6 billion on their credit cards during Q4 2003 (see Chart 7). Total spending in Q4 2003 was 8.7 percent greater than Q4 2002 in inflation-adjusted terms. The strong increase in spending that is evident over the past five years has been driven by an increase in credit card take-up.

Chart 8 Visa credit card spend in Singapore



Data source: Visa International 2004

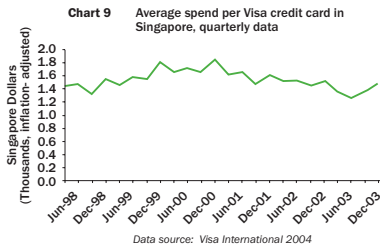
Visa accounts for around 58 percent of the Singaporean credit card market in terms of spend. The trend in total spend on Visa credit cards is very similar to the national trend (see Chart 8). Visa credit card spend increased by 4.6 percent in inflation adjusted terms between Q4 2002 and Q4 2003 to S\$2.1 billion.

Spending levels per card have been stable, apart from the impact of SARS

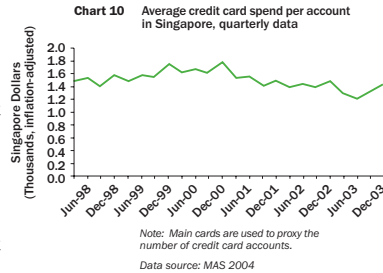
4.2 Average spend per account

Visa credit card spend per account rose steadily between Q1 1998 and Q4 2000 but has since fallen steadily (see Chart 9). On average, Visa credit cardholders spent S\$1,503 per account in Q4 2003. This is 0.7 percent less, in inflation-adjusted terms, than the amount spent per account in Q4 2002, and 6.8 percent less than the amount spent per account in Q4 2001.

The decline in spend per account, after Q4 2000 is mainly attributable to lower total annual household spending. For example, household consumption has increased by an average of just 0.8 percent between 2001 and 2003. In contrast, it averaged around seven percent annual growth between 1998 and 2000.

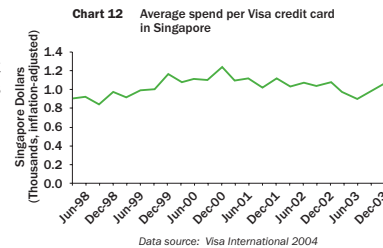
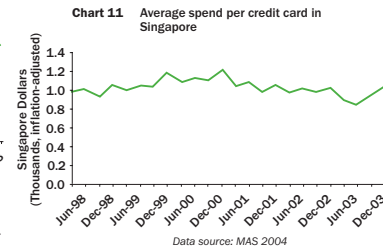


Using 'main cards' as a proxy for the number of accounts, average credit card spend per account followed the same pattern as Visa spend per account between Q1 1998 and Q4 2003. According to MAS data, total credit card spend per account was 1.8 percent less than Q4 2002 and 3.3 percent less than Q4 2001 in inflation-adjusted terms (see Chart 10). Note that the slump in the first half of 2003 was attributable to the onset of Severe Acute Respiratory Syndrome (SARS).



4.3 Average spend per card

Average spend per card mirrors movements in average spending per account over the period Q1 1998 to Q4 2003 (see Chart 11 and Chart 12). According to MAS data, average spend per credit card was S\$1,040 in Q4 2003, virtually unchanged from its level a year earlier. Visa spend per card in Q4 2003 was slightly higher at S\$1,074.



4.4 Average spend per transaction

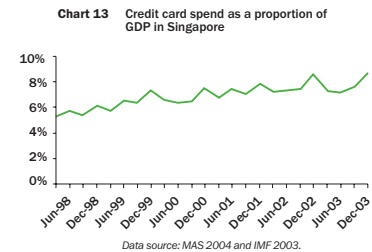
The average Visa credit card spend per transaction was S\$148 in Q4 2003. This was S\$5 less than Q4 2002 in inflation-adjusted terms.

MAS does not collect data on the number of transactions, so no comparison could be made with the wider credit card market.

4.5 Credit card spend relative to GDP

Credit card spend has increased more rapidly than the growth in GDP although this reflects an increase in the penetration of the use of credit cards throughout the economy rather increased spend per account.

Credit card spend as a proportion of GDP has increased from around five percent in the late 1990s to 8.8 percent of GDP by the end of 2003 (See Chart 13). This is roughly in the midst of the ratios witnessed in other countries within Asia Pacific. For example, during Q4 2003, Thailand's spend to GDP ratio was four percent, Malaysia's was eight percent and Taiwan's was 13 percent.

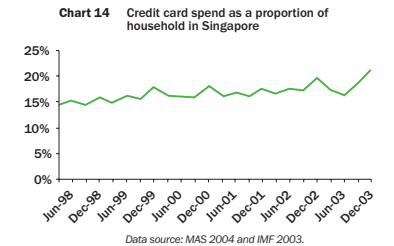


4.6 Credit card spend relative to household consumption

Credit card spend relative to household expenditure has risen as households have increased use of credit cards as a method of payment.

Credit card spend has gradually accounted for a greater share of household consumption from Q1 1998 to Q4 2003. Credit card spend was equivalent to 21.6 percent of household consumption in Q4 2003 (see Chart 14).

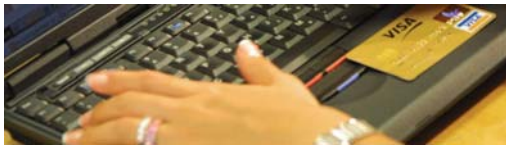
By way of comparison, the ratio of credit card spend to total household consumption was around 10 percent in Thailand and 18 percent in Malaysia during Q4 2003.



Credit card spend has gradually accounted for a greater share of household consumption from Q1 1998 to Q4 2003



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5|Credit card repayments in Singapore

This section describes recent trends in credit card repayments in Singapore. It draws on Visa data, as MAS does not collect data on repayments. All time-series comparisons of repayments make adjustments for the impact of inflation over the relevant period.

Key points

Visa data suggests that repayments as a proportion of spend for Singapore credit cardholders have remained stable in recent years.

The long-term direction in the ratio of Visa credit card repayments to spend is broadly stable over the period Q1 1998 to Q4 2003. During this time, the ratio of repayments to spend has varied between 100 and 120 percent.

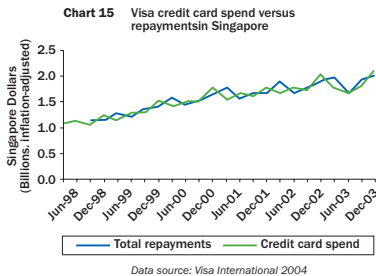
For every S\$100 Singaporean Visa cardholders spent in 2003, they repaid S\$96.

The rate of repayment is similar to that of other countries in the region.

5.1 Total repayments

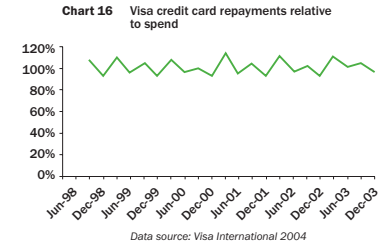
Patterns of credit card repayments can provide a useful indication of how well households are managing their credit card spending and debt. However, the data needs to be considered in the context of the broader environment. For example, a decline in the ratio of repayments to spend may be a sign of concern in times of financial stress. Equally, in a period of growth and strong underlying spending, it may reflect growing confidence in the household's ability to meet borrowing obligations. The data, then, is best viewed alongside other indicators including the data for outstanding balances (see Section 6). MAS does not collect repayment data, but Visa does.

Total repayments, like total spend, have been trending upward over time (see Chart 15). Visa credit cardholders repaid S\$2.05 billion during Q4 2003, 7.1 percent more than Q4 2002 in inflation-adjusted terms.



Repayments follow a saw-tooth pattern relative to spend

The long-term direction in the ratio of Visa credit card repayments to spending is broadly stable despite the fact that the time-series exhibits a saw-tooth pattern that fluctuates between 90 and 115 percent, reflecting the seasonal pattern of spend. For example, the ratio declines sharply at the end of each year due to the surge in spending at Christmas. It subsequently jumps as spend declines and repayments are made to meet the earlier spend.



In 2003, repayments represented 96 percent of total spend. This is in line with the spend ratio witnessed in other Asia Pacific countries, such as Malaysia at 100 percent, Taiwan at 95 percent and Thailand at 95 percent.





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6 | Credit card debt in Singapore

This section describes recent trends in credit card debt in Singapore drawing on Visa and MAS data. It identifies the proportion of balances that is revolving debt and also examines the affordability of credit card debt. All time-series comparisons of debt make adjustments for the impact of inflation over the relevant period.

Key points

According to Visa data, total outstanding balances reached S\$2.1 billion as at the end of Q4 2003 – a 1.6 percent increase on the balance as at the end of Q4 2002.

In part, this is a reflection of growth in the number of credit card accounts (in inflation-adjusted terms) and also of Singapore's improved economic performance in 2003.

The average Visa credit card account balance in Q4 2003 was S\$1,498 – the lowest Q4 average credit card debt per account recorded over the last six years in Singapore in inflation-adjusted terms.

According to Visa data, the average balance per account attracting interest was just S\$933 as at the end of Q4 2003, which was a 10.7 percent reduction on the Q4 2002 figure in inflation-adjusted terms. The proportion of total balances attracting interest also declined during 2003. By Q4 2003, 62.1 percent of total balances attracted interest. This is the lowest proportion of balances attracting interest since Q4 1999.

MAS data indicates that the average balance attracting interest per account was S\$1,010 as at the end of Q4 2003 – the lowest figure on record in inflation-adjusted terms since Q3 2000.

The delinquency rate has fluctuated with movement in the unemployment rate. As at the end of Q4 2003, the delinquency rate was approximately four percent, which is around the same rate of delinquency as that of the late 1990s.

Visa credit card default rates have been trending upward since Q4 2001 along with the unemployment rate, but they remain under 4.3 percent. Singapore default rates are in line with those of other Asia Pacific counties.

Visa credit card balances as at the end of 2003 were equivalent to five percent of GDP.



Outstanding balances per Visa account have been decreasing

6.1 Total outstanding balances

Total outstanding balance is the amount owing on a credit card at the end of a billing cycle. The balance may comprise both interest and non-interest bearing. This is the outstanding balance from the previous billing cycle plus total charges on a credit card during a billing cycle less repayments within the billing cycle.

The MAS does not publish outstanding balances, but instead only publishes rollover balances and monthly billings.

Total Visa outstanding balances have trended upward from Q1 1998 to Q4 2003 (see Chart 17), reaching S\$2.1 billion as at the end of Q4 2003. The Q4 2003 balance is 1.6 percent higher than the balance for Q4 2002 in inflation-adjusted terms.

However, these aggregate statistics do not capture the trends that are emerging at an individual account level, as described in the following section.

Chart 17 Total outstanding balances on Visa accounts in Singapore



6.2 Average balance per account

The average outstanding balance on a Visa credit card account was S\$1,498 as at the end of Q4 2003. As shown in Chart 18, average balances have been declining slowly in recent years and, in fact, are below levels recorded five years earlier. The average Singapore credit cardholder seems to be managing his/her credit card debt in an orderly fashion.

Chart 18 Average Visa balance per account in Singapore



6.3 Credit card balances relative to spend

The ratio of credit card balances to spend will reflect how households time their repayment decisions. An increasing ratio of credit card balances to spend would suggest that households are paying off their credit card balances more slowly over time.

Both average credit card spend and outstanding balances have been in decline in recent years. As it turns out, quarterly credit card spend has tended to closely match the level of outstanding balances (see Chart 19). By implication, this means that (quarterly) repayments have roughly matched the previous quarter's balance plus servicing costs.



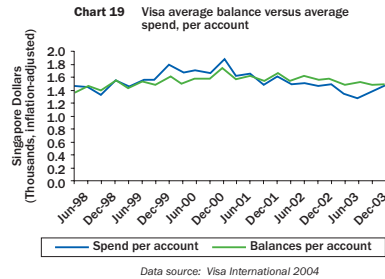
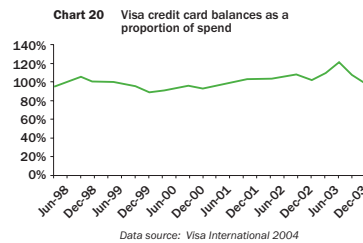


Chart 20 indicates that, according to Visa data, the ratio of balances to spend has been reasonably stable at 100 percent from Q1 1998 to Q4 2002. The ratio did spike higher in mid 2003 as SARS hit spending, but it returned to around 100 percent by the end of the year. The fact that the ratio is stable is a further indication of the sustainability of current debt levels.



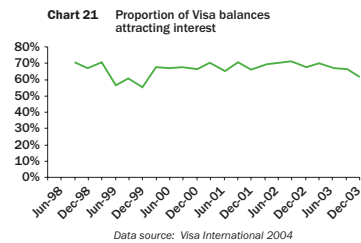
6.4 Credit card debt relative to limits

MAS does not report total credit card limits data. In other countries this data facilitates investigation of the extent to which cardholders are accumulating debt up to card limits. For instance, in Australia, limits data reveals credit card debt is consistently less than 38 percent of total card limits. The data suggests that factors other than limits are influencing cardholder-spending decisions.

6.5 Balances attracting interest

Visa and MAS collect data on balances attracting interest (i.e. revolving credit card debt).

According to Visa data, 62.1 percent of total balances attracted interest as at the end of Q4 2003 (see Chart 21). That is, S\$1.3 billion of the total S\$2.1 billion balances owing on Visa cards attracted interest. The proportion of balances attracting interest steadily declined during 2003. By Q4 2003 the proportion of total balances that attracted interest was the lowest it had been since Q4 1999.

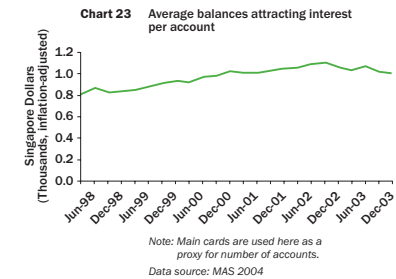
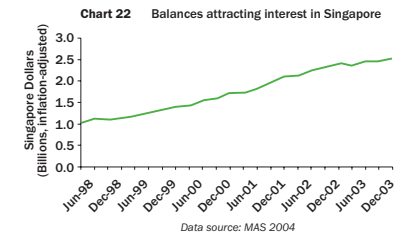


Singapore credit cardholders as a group adopt a methodically sustainable approach to credit card debt repayments that leaves them without financial stress

The majority of Singapore consumers are able to manage their credit card debt well

According to MAS data, total balances attracting interest have been steadily increasing since Q1 1998 (see Chart 22), although throughout 2003, the rate of increase declined markedly.

However, this aggregate result has been driven primarily by growth in credit card penetration. The average balance attracting interest per main card (as a proxy for accounts) has declined a little over the last 18 months, to stand at S\$1,010 in Q4 2003 (See Chart 23).



6.6 Affordability of credit card debt

The available indicators of credit card affordability suggest that the majority of Singapore consumers are able to manage their credit card debt in an orderly fashion. The increase in unemployment in recent years has had a modest but noticeable effect on default rates and related indicators.

Delinquency, default and net credit losses as a proportion of total outstanding balances, are three indicators that measure the extent to which cardholders are having difficulties in repaying their credit card liabilities.

The delinquency figure is the broadest of the measures, encompassing all those cardholders who are overdue in paying their credit card liabilities by 30 days or more.

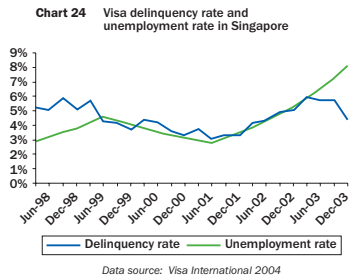
The indicators of default rate and net credit loss as a proportion of total balances outstanding are narrower measures that focus on those cardholders in real difficulty. The default figure encompasses all those cardholders who are overdue in paying their credit card liabilities by 90 days or more plus those cardholders who have been deemed unable to repay their credit card debt (net of any monies collected from those cardholders).

The net credit loss figure (expressed as a proportion of total outstanding balances) is the narrowest of the measures, focusing only on those credit cardholders who have been deemed unable to repay their credit card debt (net of any monies collected from those cardholders) and the debt has been written off.

As more people become unemployed, there will be greater difficulties meeting obligations on liabilities including those on credit cards

6.6.1 Delinquency rates

The delinquency rate has fluctuated with movements in the unemployment rate (See Chart 24). As at the end of Q4 2003 the delinquency rate was around four percent, which is around the same rate of delinquency as that found in the late 1990s.



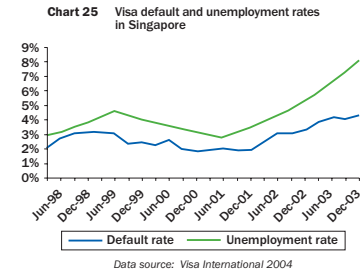
As at the end of Q4 2003, the delinquency rates in other Asian countries were: Hong Kong 2.1 percent, Thailand 4.2 percent, and Malaysia 11.9 percent.

6.6.2 Default rate

The default rate has fluctuated between 1.8 percent and 4.3 percent over the period Q1 1998 to Q4 2003 (see Chart 25). The default rate increased for a short period in 1998 after which it dropped for the next three years.

As with the delinquency rate, the default rate has closely followed the movement in the unemployment rate, as indicated in Chart 25. This relationship is not surprising – as more people become unemployed, there will be greater difficulties meeting obligations on liabilities including those on credit cards.

The correlation between the two series indicates that the lift in the default rate in recent times in Singapore has been driven by the economic cycle rather than a fundamental change in cardholder behavior.



Household income increased by 7.7 percent between Q4 2002 and Q4 2003

6.6.3 Credit card net losses

After a period of time, credit card balances that are not being repaid are “written off” by financial institutions with the amounts written off referred to a ‘gross credit losses’. Some of the amounts that are written off are subsequently recovered from cardholders. Subtracting these recovered amounts from the gross credit losses gives net credit losses.

Net credit losses are an important indicator for several reasons:

- They influence the profitability of the credit card business
- They are an indicator of the efficiency of the collections process which is an important part of the overall management of the credit card business
- They are an indicator of the overall financial position of the debtor

Chart 26 presents Visa data on net credit losses per quarter expressed as a proportion of total Visa balances outstanding. The ratio of net credit losses as a proportion of total balances remained relatively stable up until the early part of 2002, but has since risen quite sharply, especially in the most recent quarter, Q4 2003. This recent rise has been influenced by a major review of credit records by a major issuer and should therefore be seen as a one-off increase. During Q4 2003, net credit losses amounted to around S\$51.7 million or 2.4 percent of total Visa balances.

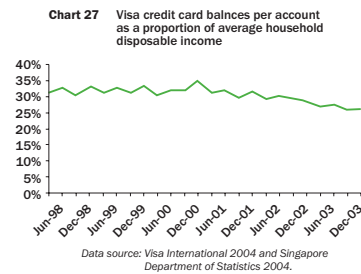
Chart 26 Visa net credit losses as a proportion of total balances



Visa credit card balances in Singapore were equivalent to 5.1 percent of quarterly GDP as at the end of Q4 2003

6.6.4 Credit card balances relative to household income

A comparison between credit card balances and household disposable income will provide a further indication of the ability of households to service their credit card liabilities. As with the statistics in earlier sections, these figures will be heavily influenced by the strong increase in the number of households with credit card accounts.



To make allowance for this trend, Chart 27 depicts the ratio of outstanding balances per credit card account to average household disposable income, combining Visa data with that from national sources.

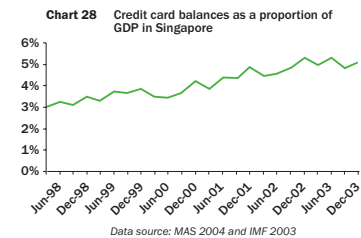
Chart 27 illustrates that the ratio has been stable from the late 1990s to 2001 after which it established a clear downward trend as income expanded more quickly than debt. According to Statistics Department of Singapore data, aggregate household income increased by 7.7 percent in inflation-adjusted terms between Q4 2002 and Q4 2003, which compares to the growth in Visa outstanding balances over the same period of just 1.6 percent. This increase in income relative to debt in recent times suggests that Singaporean cardholders are comfortably managing to repay their credit card liabilities.

6.6.5 Credit card balances relative to GDP

Finally, credit card balances are compared with GDP. GDP includes not only household income but also the income of business and the public sector. Rather than duplicate the pattern in Chart 27, we compare total Visa credit card balances with quarterly GDP. Thus, this measure will incorporate both the increased penetration of credit cards and any movement in the average balances to GDP.

Visa credit card balances have risen gently relative to quarterly GDP between Q1 1998 to Q4 2003 (see Chart 28). The trend rise in the ratio of Visa balances to quarterly GDP is in largely due to increased credit card take-up. Visa credit card balances in Singapore were equivalent to 5.1 percent of quarterly GDP as at the end of Q4 2003.

Visa credit card balances as a proportion of quarterly GDP as at the end of Q4 2003 in Thailand was four percent, in Malaysia five percent, and in Taiwan 15 percent.



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7 | Visa debit card

This section uses Visa data to investigate recent trends in Visa debit card uptake and transactions.

Key points

- As at the end of 2003, there were 584,000 Visa debit card accounts in Singapore, up 9.6 percent on the previous year.
- During Q4 2003, Singapore debit cardholders made 824,000 debit card transactions, at an average of 1.41 transactions per card per quarter. On average, debit card use per card grew by 0.9 percent in 2003.
- During Q4 2003 Visa debit cardholders in Singapore spent S\$139 million on debit card transactions, at an average of S\$237 per card per quarter. Debit card spend per account grew by 14 percent in the year to Q4 2003 in inflation-adjusted terms.

Use of electronic payment methods, including Visa's credit and debit card products is growing in Singapore. At the end of 2003, there were 584,000 Visa debit card accounts, up 9.6 percent on the previous year.

During Q4 2003 Singapore debit cardholders made 824,000 debit card transactions, at an average of 1.41 transactions per card per quarter. Over the year ending Q4 2003 the total number of debit card transactions grew by 11 percent, while transactions per card rose by 0.9 percent.

Debit card spending during Q4 2003 was S\$139 million or S\$237 per card in inflation-adjusted terms. Debit card spending grew strongly by 25 percent (on an inflation-adjusted basis) during 2003. Debit card spend per account grew over the same period by only 14 percent in inflation-adjusted terms.

Visa's debit product, revered to as Visa Electron in Singapore, is not the only debit card product that is used in Singapore to buy goods and services. Others include PIN-based and signature-based products.

According to the MAS, during 2002 there were 97.2 million debit card transactions at the point of sale, 2.2 million of which were Visa debit transactions. These debit card transactions were used to purchase S\$6.2 billion worth of goods and services, S\$240 million of which were attributable to Visa debit card spend.

Combined with the credit card use figures presented in sections 3 and 4, this indicates that electronic payment in Singapore is an extremely popular and growing payment method. As evidence of this, in 2002 credit card spend plus debit card point-of-sale spend together accounted for 27.2 percent of household consumption.

8 | The way forward

In considering future policy options, there are several issues that need to be considered.

- Singapore has a well-developed credit card market as evidenced by the fact that there were 3.4 cards for every household as at the end of Q4 2003. Despite this, the Singaporean credit card market is growing. During 2003 the number of credit cards in circulation increased by 8.4 percent.
- There is no information about the proportion of these credit card accounts and associated cards that are active. It is conceivable that in a highly competitive credit card market, consumers will take up credit cards that offer better value and divert their credit card use to those cards. The cards and associated accounts they leave behind become inactive or less active. In this situation, regulation to restrict credit card issuing activity may simply restrict consumers from accessing a better deal.
- In aggregate terms credit card spending is rising. However, there is also a strong and growing repayment culture in Singapore. Visa credit cardholders regularly repay more than they spend each quarter (after recognizing the seasonality inherent in spend patterns).
- Total credit card balances are rising, however the average account balance in Q4 2003 was the lowest on record of the last six years. According to Visa data, the proportion of total balances attracting interest declined during 2003. As at the end of Q4 2003, 62.1 percent of total Visa balances attracted interest. This is the lowest proportion of balances attracting interest since Q4 1999. MAS data shows that the average balance attracting interest per main credit card was the lowest figure on record since Q3 2000 in inflation-adjusted terms.
- Default rates have risen in recent years in line with higher unemployment rates. Despite a recent rise, the default rate remains under five percent.
- It is clear that Singapore households are increasingly using their credit cards to pay for their household consumption. During Q4 2003, the proportion of household consumption financed using a credit card in Singapore was 21.6 percent, reflecting the value consumers put on convenience in a developed economy. Equivalent figures for neighboring countries are estimated to be 10 percent for Thailand and 18 percent for Malaysia during Q4 2003.

Data limitations constrain our capacity to undertake more comprehensive analysis of credit card take-up, use, spend, limits, repayments and debt in Singapore. MAS may choose to stimulate more informed public debate on credit card use and debt by collecting and publishing national data relating to the number of credit card accounts, the number of transactions, total limits, repayments, total outstanding balances, the number of accounts that have a zero balance, and the default rate. Visa would welcome this as part of its commitment to foster the continuing development of a modern payments system

Glossary of key terms

Indicator/Term	Definition
Balances	The amount owing on a credit card at the end of a billing cycle, both interest and non-interest bearing. This is the outstanding balance from the previous billing cycle plus total charges on a credit card during a billing cycle less repayments within the billing cycle.
Balances accruing interest	Includes any part of total balances on which the customer has been or will be charged interest.
Credit card	A plastic payment card that can be used at a wide variety of merchants to make purchases and which offers a wide range of credit facilities and other benefits to cardholders. The card usually offers an interest-free period and a revolving line of credit.
Credit card account	An account held with the card issuer to which one or more credit cards are linked.
Credit card limits	Refers to the sum of credit card limits approved on all credit card accounts in Thailand.
Credit card spend	Credit card spend includes all amounts spent on bank-issued credit cards during the quarter. This includes transactions on accounts with and without an interest free period. It includes cash advances and payments for goods and services.
Credit card transactions	All transactions made using a credit card including cash advances and other payments for goods and services. This does not cover charge cards.
Default rate	Balances that are outstanding for more than 90 days plus outstandings that have been written off as a proportion of total balances, expressed as a percentage.
Delinquency rate	Calculated as delinquent balances divided by total outstanding balances, expressed as a percentage. Delinquent balances are balances that are over 30 days due.
Gross Domestic Product (GDP)	Is the total market value of goods and services produced in Thailand within a given period after deducting the cost of goods and services used in the process of production but before deducting allowances for the consumption of fixed capital. Thus gross domestic product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services.
Household expenditure	All forms of expenditure by households as recorded in National Statistical Office of Thailand household surveys.
Household debt	All forms of debt accrued by households including housing-related debt, and other personal debt.
Household disposable income	Household disposable income is the total of income received minus income tax and minus other income payable.
Inflation adjusted	An adjustment (using a local price index) to a time series' nominal values to remove the impact of inflation.
Nominal	Value expressed in terms of its current price.
Rate of debt turnover	Total balances divided by annual credit card spending.
Repayments	Captures all payments to credit card accounts including payment of interest, fees and other charges billed to the account.

Charts and tables

Chart 1	Number of credit cards in Singapore	3
Chart 2	Number and growth of Visa credit cards in Singapore	3
Chart 3	Number of credit card accounts in Singapore	4
Chart 4	Number of Visa credit card accounts in Singapore	4
Chart 5	Number of merchants accepting Visa credit cards in Singapore	5
Chart 6	Number of Visa credit card transactions	6
Chart 7	Total credit card spend in Singapore	7
Chart 8	Visa credit card spend in Singapore	7
Chart 9	Average spend per Visa credit card account in Singapore, quarterly data	8
Chart 10	Average credit card spend per account in Singapore, quarterly data	8
Chart 11	Average spend per credit card in Singapore	8
Chart 12	Average spend per Visa credit card in Singapore	8
Chart 13	Credit card spend as a proportion of GDP in Singapore	9
Chart 14	Credit card spend as a proportion of household consumption in Singapore	9
Chart 15	Visa credit card spend versus repayments in Singapore	10
Chart 16	Visa credit card repayments relative to spend	11
Chart 17	Total outstanding balances on Visa accounts in Singapore	13
Chart 18	Average Visa balance per account in Singapore	13
Chart 19	Visa average balance versus average spend, per account	14
Chart 20	Visa credit card balances as a proportion of spend	14
Chart 21	Proportion of Visa balances attracting interest	14
Chart 22	Balances attracting interest in Singapore, thousands	15
Chart 23	Average balances attracting interest per account	15
Chart 24	Visa delinquency rate and unemployment rate in Singapore	16
Chart 25	Visa default rate and unemployment rate in Singapore	16
Chart 26	Visa net credit losses as a proportion of total balances	17
Chart 27	Visa credit card balances per account as a proportion of average household disposable income	18
Chart 28	Credit card balances as a proportion of GDP in Singapore	18

