

Sweden: A Far from Accidental Journey towards a Cashless Society

1. Introduction

Sweden is a country on a “cashless journey” – or so the story goes.

In this report we will examine why and how the journey started, review progress along the way and speculate on the likelihood that Sweden will ever arrive at the intended destination.

2. Background

The San Francisco Federal Reserve has recently released a report on cash use in 42 countries reporting that:

“Sweden has garnered attention as the poster child of cashless countries. Since the 1960s, Swedish banks have encouraged digital bank transfers, charged for checks, and invested heavily in card payment systems. The banking system collaborated to create an automated clearing house, Bankgirot, and to launch a popular mobile payments app, Swish. Sweden also has a cultural stigma against cash, with some Swedes associating the payment method with crime. The 2009 Money Laundering and Terrorist Financing Prevention Act required police reports to be filed for large cash transactions, and high-profile cash robberies have contributed to public wariness of cash.”[1]

Sweden is certainly the country most often mentioned as having made greatest “progress” towards becoming a cashless society.

The idea of a Swedish Cashless Society has some well-known supporters, amongst them Bjorn Ulvaeus, one “B” in the name of the famous pop group ABBA. “Banknotes and coins are expensive to manage, contribute to crime and are unhygienic. At ABBA the Museum, we decided from the beginning not to accept cash as payment. It has been shown to work very well,” says Björn. He goes on, “In today’s news, I read the headline ‘one in every eight homes affected by break-ins every year’. The article talks about all possible prevention measures except one. It is the easiest to implement and absolutely the most efficient – remove the cash in society. At the moment, nobody has been able to explain to me what the thief is going to do with what he or she stole in the villa or apartment unless it can be turned into cash.” [2]

The ABBA Museum is sponsored by Mastercard, so perhaps an anti-cash stance can be regarded as understandable. In any event, Ulvaeus mentions home “break-ins” when

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elaborating his negative views on cash. There is a public perception that one reason he started his anti-cash campaign is that his own son's apartment in Stockholm was broken into twice.

It is perhaps worth noting rumours which circulated that Björn Ulvaeus had been personally sponsored by the large card schemes to act as an "ambassador" for the anti-cash campaign in Sweden. When these rumours appeared in the media, Björn largely vanished from the scene.

In any event, it is certainly not only the ex-ABBA crooner who is against cash.

Since 2006, the Trade Unions in Sweden have been anti-cash, in a big way. The Unions forced the banning of cash for payment of bus fares, raising concerns about driver safety and declaring that handling cash had become a "work environment problem". [3] This might be seen as an odd concern to have in relatively untroubled Stockholm, when, for example, buses in a city such as Los Angeles still accept cash for fares.

Ironically, this happened because cash use by bus passengers had actually gone up. The Swedish Government had the year before introduced a flat fare of 20 Krona for any bus journey and the public were very happy to simply present a note of that denomination to meet the price of their fare.

So much for the claim by some that the public are driving the journey towards a cashless Sweden. The public are neither driving the buses, nor the attempted headlong rush towards a cashless future.

Later, we will examine the crime figures from Sweden to confirm, or otherwise, the impact that removing cash from the economy has had on crime.

Some researchers are actually predicting a specific date for the death of cash in Sweden. Sputnik International reported their forecast:

"The smooth transition toward a totally cashless society could be completed already in 2023, when shops are likely to stop accepting cash altogether, a study from the Royal Institute of Technology (KTH) and the Copenhagen School of Economics suggested. After extrapolating the decreasing use of cash against the rising cost of handling cash, researchers Niklas Arvidsson and Jonas Hedman suggested the world's first cashless society may become reality already on March 24, 2023, which they called the most likely critical point." [4]

One of the researchers has his own views of why cash seems to be dying in Sweden, with Niklas Arvidsson claiming that "At present, 97 percent of traders accept cash, but only 18 percent of consumer payments are made in cash. So it's the consumers that are the driving force". [12]

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We shall examine later the claim made by Niklas Arvidsson that consumers are the driving force in the journey towards a cashless society. That was certainly NOT the case in relation to the use of cash to pay bus fares.

For now, we will simply welcome that he acknowledges that 97% of Swedish traders still accept cash. There are many financial services conferences each year. Frequently at such events, one or other of the highly paid consultants, who seem to criss-cross the planet preaching the merits of a cashless society, will rise to their feet to talk about how difficult it is now to use cash in Sweden. Mr Arvidsson neatly rubbishes that claim.

In addition, the Swedish Riksbank has, as recently as 2016, rejected the claim that the public is driving the country towards a cashless state, as reported by Computer Weekly:

“Björn Segendorf, adviser at Riksbank’s financial stability department, told Computer Weekly that the move [to ensure cash services are available to the public] is important in the face of rapid structural change in the Swedish payments market.

[Cashless advances] have been beneficial, but as with every change there are certain groups who experience problems,” he said. “We see the supply of cash services being too small, and that is what we want to address with this proposal.” [5]

Of course, the Riksbank itself had years before taken several decisions that quickly led to a reduction in public access to cash. Such decisions included delegating cash management to a subsidiary of the commercial banks in 2005 and, later, sanctioning the closure of cash handling at Swedish Post Offices.

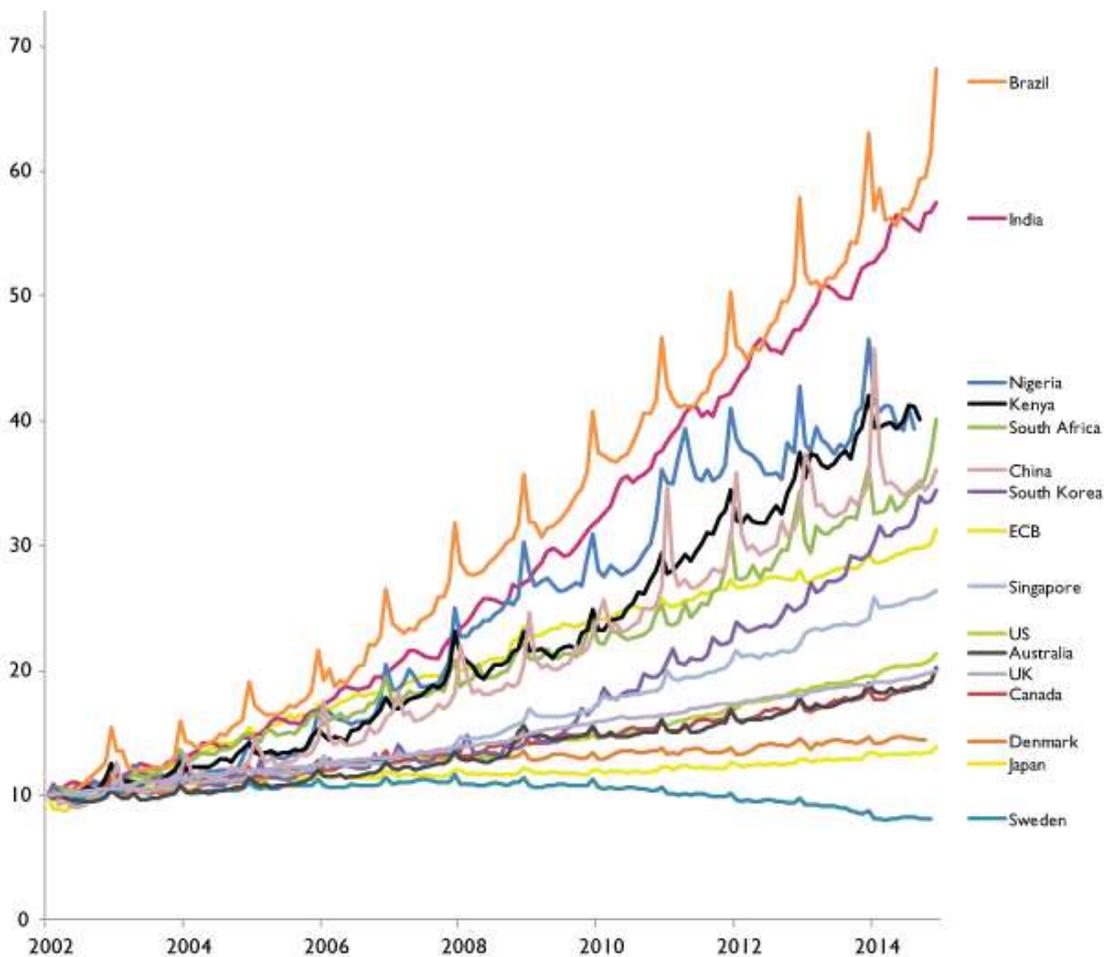
It is not clear at this stage whether the intervention of Sweden’s Central Bank will block the path leading towards a cashless future. For now, we will simply note that Sweden apparently moving towards becoming the planet’s first cashless state is clearly neither accidental, nor simply the outcome of choices made by the Swedish public.

3. Cash in Circulation and Cash Use for Payments

It is an obvious starting point to look at cash in circulation and in doing so compare Sweden with other markets.

The Table below does just that.

Currency in circulation by nation



Source: Bloomberg and various central bank websites

Starting at a base year of 2002, it can be seen that until 2008 there was some growth in cash in circulation in Sweden. However, since then there has been a significant and accelerating decline.

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Sweden is the only country in the world to see such a pattern. Even in Denmark, a short bridge journey away, and with roughly the same profile in terms of cash use for retail purchases, there has been an increase in the value of cash in circulation.

Why is Sweden unique now, when it wasn't in 2008?

Here is an extract from a speech made in February 2008 by the Swedish Riksbank's Deputy Governor Lars Nyberg:

"I will begin with cash. Cash payments still account for a large proportion of the number of transactions in the Swedish economy. But it comes as no surprise to anyone if I say that they have declined in significance in recent decades. As a per cent of GDP, the share of Swedish banknotes and coins in circulation (M0) has more than halved since the 1950s, from around 10 per cent to just around 3.5 per cent.

In the past fifteen years, however, the trend has levelled off. The use of cash has not declined in the same way as before. M0 in nominal terms has actually increased. If we look at the statistics for ATM withdrawals, we find that the total transaction value has remained fairly constant at around SEK 275 billion a year during the entire 2000s. The number of cash withdrawals has been around 320 million.

... we must probably point out that we Swedes like our cash more than most analysts believed a few years ago." [6]

Do you detect a hint of surprise and, even perhaps a little disappointment in Mr. Nyberg's speech?

The Swedish public had made their choices by 2008 and, clearly, had decided their country had gone far enough towards being cashless. But, of course, that wasn't good enough for those who profit from all things non-cash. They had plans in progress to force their will on the, at that stage, unsuspecting Swedish public.

An absolutely crucial step had already been taken in 2005, with the creation of an entity called BDB Bankernas Depå AB.

Not a memorable brand name for an enterprise but, then again, this company wasn't interested in being noticed by the Swedish public.

Surprisingly, given the continuing importance of cash in the Swedish economy, the Riksbank had agreed to hand over management of the Swedish currency to a consortium of five commercial banks, who set up BDB to be the vehicle for their control of cash in circulation. The Riksbank still arranged for the notes to be printed but, from 2005 onwards, the notes were simply passed to BDB.

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Handing control of the nation's currency to banks with a vested interest in managing its decline has to be up there with the strangest Central Bank decisions of all time. The equivalent of a Gamekeeper handing his only gun to a Poacher.

It did not take the Poacher long to start culling the currency.

The message immediately communicated by BDB to its customers, including cash management companies and retailers, was that cash had to become more expensive at the wholesale level.

So when Riksbank Deputy Nyberg noted in part of his 2008 speech that "cash is still expensive to transport and manage" [6], he would have known precisely why that was so.

Because the Riksbank had in 2005 handed control of the country's currency lock, stock and barrel to BDB, an entity seemingly created specifically with the intent to make cash more expensive to use.

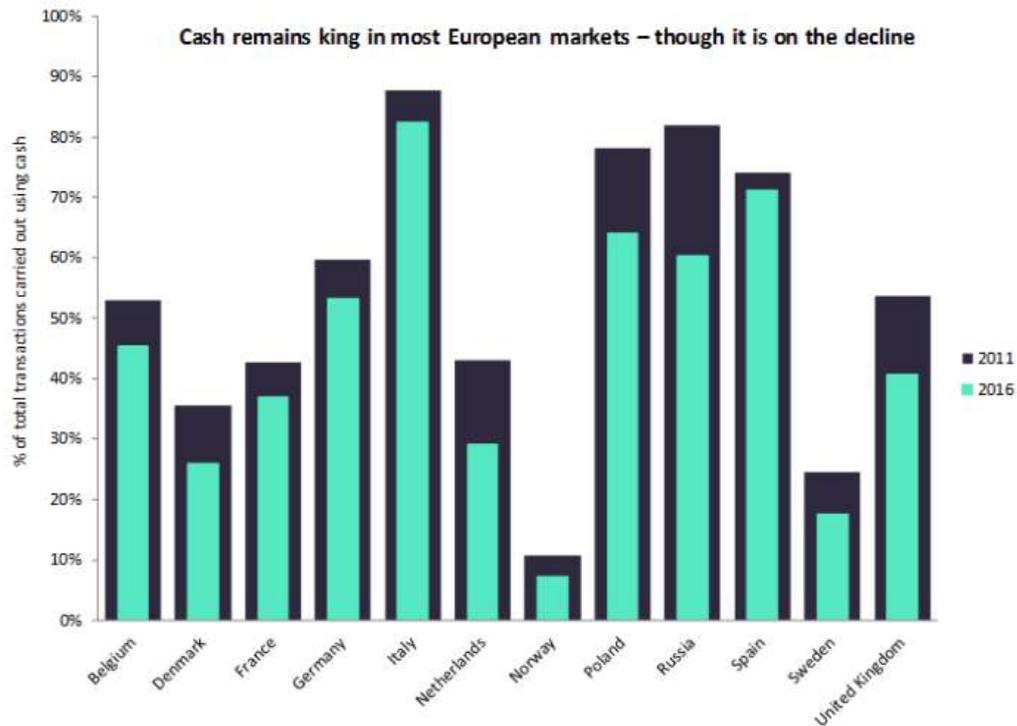
BDB increased the wholesale costs of Swedish banknotes and, tellingly, made the 1000 krona note so expensive in 2016 that no one was prepared to buy it. So the previously popular note fell out of use completely.

The highest denomination note being deliberately made unavailable to the public of course meant it couldn't be used for purchases AND it also removed the most suitable denomination to use as a store of value. So two birds killed with one shot. What a successful Poacher!

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Turning to cash use for payments, the old work horse, born 700 BC, in most countries it is still doing pretty well, as you can see from the table below:



Source: Global Data [7]

The decline in Sweden has been uniquely marked, to the extent that the transaction value of cash has declined from an estimated SEK 275 Billion in 2008 to less than SEK 150 Billion in 2016. As we have seen, this has been a far from accidental decline and neither has it resulted from free choice exercised by the Swedish public.

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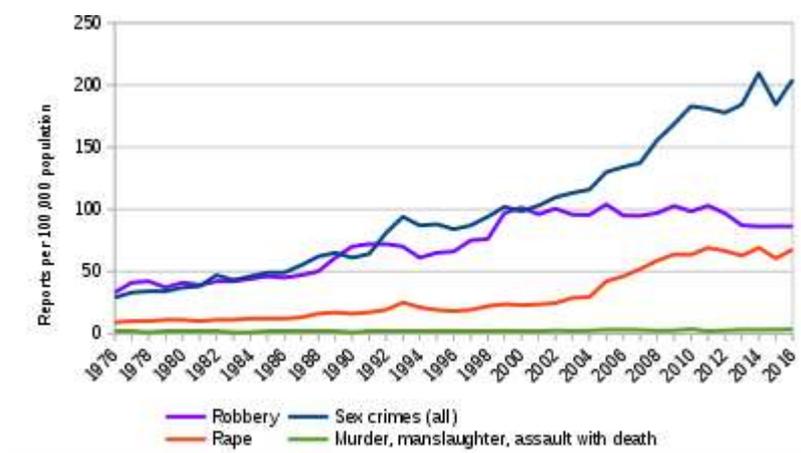
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4. Crime in Sweden

Cash is often blamed in Sweden as being the primary generator of criminal activity.

However, the fact is that as cash use in Sweden has continued to fall, the overall level of criminal activity has continued to rise. This is illustrated by the graph below.

Digital Ventures October 2017



Source: Swedish National Council for Crime Prevention [13]

Basic theft has decreased slightly, but other crimes, including fraud, have increased significantly, whilst prosecutions have decreased.

As reported by Swedish press,

“International crime networks are increasing their presence in Sweden in order to further target households for break-ins, according to a new police report.

The networks are already believed to be responsible for up to half of reported household burglaries in the country, according to the report which public broadcaster SVT had access to, and an increase in the future is expected.

Police say the thieves are generally from Eastern Europe, the Balkans, Baltic region and South America. Well organized, with good economic resources and a clear structure, they are often controlled remotely from abroad.

‘They are career criminals, they’re not addicts, and they’re men. They’re between the age of 20 and 40 and consist of an inner core that have known each other for a very long time and have a long

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career of crime behind them,' Stefan Pettersson, international crime department spokesperson from Swedish Police National Operations Department (Noa), told SVT.

The thieves primarily target small valuable items that are easy to transport out of the country such as gold jewellery and watches. And some of the networks even work together both in Sweden and abroad, including loaning thieves to help cover shortages of personnel.

Police warn that the problem cannot be solved by Sweden alone, and that more cooperation between countries in the EU is needed to halt the progress of the networks." [8]

The most well-known crime incident in Sweden that featured cash was in 2009. Here is a report from the Guardian Newspaper:

"Sweden has seen its fair share of daring cash robberies in recent years, from fake bombs used as decoys to the hold-up of luggage handlers at airports. But a raid by a gang that landed from a helicopter on to the roof of a cash depot in Stockholm today and loaded up with bags of money has foxed police.

The masked gunmen jumped out on to the roof of the G4S cash depot in the Västberga area just after 5am, smashed windows with a sledgehammer and made their way inside. Around 20 staff were in the building at the time of the attack, many believed to have been involved in counting money.

Once the gang was inside, witnesses reported hearing several loud bangs. The helicopter casually hovered for 15 minutes waiting for the men to load up bags of stolen cash from the roof-top. One witness told Swedish TV: "Two men hoisted themselves down. I saw when they hoisted up money, too."

Meanwhile, a police Swat team was seen desperately trying to enter the cash depot with a battering ram.

The police were unable to call out their own helicopters because suspected explosives had been placed at the aircraft hangar in a bag marked "bomb". "We've found what we believe is a live bomb to hinder our response," a police spokesman, Rikard Johansson, said. Small spiked objects had also been spread out on the road near the depot in an attempt to hinder the police from approaching the scene." [9]

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Notwithstanding the undoubted drama of the attack on the cash depot in 2009, it is worth noting that cash robberies involving Cash-in-Transit vehicles and ATMs have almost vanished since the introduction of end-to-end ink dye security systems. This was legislated for in 2007. So the attack on the cash depot can perhaps be viewed as the last significant act of criminals involving cash. Since then, as evidenced by the report in The Local, criminal activity seems to have largely migrated to other valuables, such as gold and jewellery.

5. Swedish Banks: Technological Innovation, Branch Services Decline

Swedish banks have been adept at developing and implementing non-cash systems. Most fair-minded observers view such innovations as worthy of praise.

Key among the recent innovations is “BankID”. Established in 2003, it is a secure electronic identification system used on the internet and was brought to mobile in 2010.

BankID was originally developed by a consortium of large banks and is used by government authorities, businesses, banks and individuals across the country as the principal system for digital identification, including signing transactions and agreements. Out of 9.6 million Swedes, around 6.5 million use the system for online and mobile banking to online shopping and tax declaration.

“It is pretty unique for all the banks to get together in conjunction with the government, to have a single security system to be used across all your financial services – but also to submit tax returns,” said Ross Methven, director of client services at digital banking focused Mapa Research.

“That is unique to the Swedish market and it reduces the barriers for people to adopt mobile banking. The biggest barrier to adoption in most other markets is security concerns, such as when different banks have different security models.”

Another example of successful banking collaboration in Sweden is the Swish mobile payment app, launched in late 2012 by Danske Bank, Handelsbanken, Länsförsäkringar Bank, Nordea, SEB and Swedbank. The app – which uses Mobile BankID for authentication – offers real-time payments between bank accounts using mobile phone numbers.

How does this work? Let’s say you run into a friend on the street and remember you need to pay back a debt. Open Swish, type in the amount and your friend’s mobile phone number (if they are a Swish user) and the payment from your bank account reaches your friend’s account in 10 seconds.

Swish has quickly gathered a strong following. Around 5.7 million people have enrolled for the service since its launch, with over 6 million transactions performed every month. In 2014, the app was expanded to cover consumer-to-business payments, including retail. According to Nordea, the service will be extended to e- and m-commerce payments by the end of 2016.

“Swish shows there is collaboration in Sweden and banks can work together to develop innovative systems,” said Teigland. “For example, in Denmark they couldn’t get the banks together to do something like this. So they ended up with only one bank doing it.”

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As use of technology has expanded, bank branch numbers have steadily declined.

Industry estimates are that there are now (February 2017) around 1600 bank branches in Sweden, a decrease of around 250 in the last ten years.

Crucially, around 900 of the 1600 remaining branches are cashless, meaning that, though they may in some cases have an ATM, they do not issue any form of cash over the counter or accept cash deposits.

The ability to deposit cash is vital, especially to small businesses. The advent of cashless branches has severely limited the ability of such businesses to deposit cash. For example, in Malmö, Sweden's third largest city, with a population of over 300,000 and many businesses, only one bank branch accepts cash deposits. Travelling to that branch and queuing to deposit cash costs businesses valuable time, making cash seem a very unattractive proposition.

Similar, small and medium sized businesses, particularly retailers, need coins to be able to offer their customers change when banknotes are presented for payment. In Stockholm, no bank branch offers coins to business customers. The only way a retailer can get coins is through ordering on the internet or by visiting one cash management company's depot, where rolls of coins are dispensed from a machine. Once again, cash being made unattractive to businesses because banks have deliberately reduced cash-related services to their customers.

6. ATM Numbers in Sweden

The banks in Sweden have been secretive about ATM numbers in the country. Perhaps this is based on the theory that, if you don't ever tell anyone how many ATMs there are, no one is ever going to know precisely the extent to which the number is decreasing.

Be that as it may, industry sources in Sweden estimate that in 2010, the countries five major banks had around 3000 ATMs. This represents around one ATM per 3000 Swedish residents. The comparable figure in the UK is one ATM per 1000 UK residents.

In 2010, the five major Swedish banks decided to pool their ATMs in a wholly bank-owned company called Bankomat. By 2012, Bankomat was operating all of the ATMs previously operated by the five banks. Bankomat charges its owner banks fees to cover the cost of operating the ATMs, with the objective of the company breaking-even. The primary rationale for the arrangement is that Bankomat will keep fees imposed on its owner banks to a minimum and aim to reduce them each year.

Since Bankomat began operating ATMs in earnest in 2012, one of its main tools for reducing fees levied on its owner banks has been the deinstallation of ATMs. By October 2017, Bankomat only operated 1700 ATMs. Industry sources believe that by 2022, Bankomat will only operate ATMs at 600 locations, though some locations may have more than one ATM.

Industry sources believe that Bankomat has a standard policy of removing ATMs that fail to achieve 5500 cash withdrawals per month, though this can be varied if, for example, the ATM is the last one in town.

5500 cash withdrawals per month is an astonishingly high bar for ATM performance. Here are some international comparisons that highlight this:

- France: 56,000 ATMs, averaging 2200 Cash Withdrawals per Month per ATM;
- Germany: 58,000 ATMs, averaging 2500 Cash Withdrawals per Month per ATM.
- Poland: 23,000 ATMs, averaging 2600 Cash Withdrawals per Month per ATM.
- Switzerland: 7000 ATMs, averaging 1800 Cash Withdrawals per Month per ATM.
- UK: 70,000 ATMs, averaging 3500 Cash Withdrawals per Month per ATM.

Source: ATM Industry Association

It seems clear from international comparisons that if Bankomats criteria for ATM removal was applied in any of the five European markets illustrated, tens of thousands of ATMs would be likely to be subject to removal. In fact, Switzerland would probably be left with only a handful of ATMs.

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It is obvious that Bankomat are not removing ATMs because the public are failing to use them. Swedish ATMs are used more heavily on average than in many European markets. The only credible reason the ATMs are being removed is to reduce Bankomats operational costs, so that they can in turn reduce the requests for funding made to their owner banks.

It is clear that no blame attaches to the management of Bankomat. The actions they take are forced on them by the continuing requirement to drive down the fees paid by the banks which own the company.

It is worth noting that the “pooled” ATM model implemented at Bankomat is becoming increasingly prevalent around Europe. From the Swedish experience, it seems likely this will lead to a diminution of ATM numbers and convenient access to cash in any market in which it is implemented.

Patently, having ATMs in only 600 locations in Sweden, which is the forecast position by 2022, is not going to provide the Swedish public with convenient local access to cash. For most Swedes, it is probable that getting cash is going require a special journey to some central point in significant conurbations or Shopping Malls. The necessity for special journeys is hardly likely to make cash more popular with the Swedish public and businesses.

Essentially, the Swedish banks who own Bankomat do not seem to want ATMs – or cash.

This anti-ATM, anti-cash stance has apparently cascaded from Bank Boardrooms right down to branch staff.

As an example, in a town in Sweden with five bank branches, only one is likely to be allocated an ATM by Bankomat – and, according to industry sources, the staff at the branch that is given the ATM will NOT want it on their site. Bank staff have been encouraged to believe that ATMs and cash are not worth having, bringing with them “hassle” and the need for extra work to be done. For people with such a mentality, what is there to like about ATMs and cash?

All of this leads to the conclusion that there is going to be little investment in ATMs in Sweden going forward. ATM innovation, including note and coin deposit and recycling, which could have made cash more convenient to use and circulate for both the public and businesses in the absence of bank branches, is unlikely to be introduced to the extent required to meet the nations needs.

In short, the future is bleak for both ATMs and cash in Sweden, unless the government intervenes to force banks to provide decent cash services.

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Government intervention looked unlikely, until very recently. However the following article from Bloomberg, published on 18 February 2018, holds out some hope of government action (10)

““No cash accepted” signs are becoming an increasingly common sight in shops and eateries across Sweden as payments go digital and mobile.

But the pace at which cash is vanishing has authorities worried. A broad review of central bank legislation that’s under way is now taking a special look at the situation, with an interim report due as early as this Summer [2018].

“If this development with cash disappearing happens too fast, it can be difficult to maintain the infrastructure” for handling cash, said Mats Dillen, the head of the parliamentary review. He declined to give more details on the types of proposals that could be included in the report.

Sweden is widely regarded as the most cashless society on the planet. Most of the country’s bank branches have stopped handling cash; many shops, museums and restaurants now only accept plastic or mobile payments. But there’s a downside, since many people, in particular the elderly, don’t have access to the digital society.

Riksbank Governor Stefan Ingves has said Sweden should consider forcing banks to provide cash to customers. In its annual report on Monday, the Riksbank said the question is what role it should play in a future with even fewer cash payments.

“The Riksbank is carefully analyzing this development,” Ingves said. “Overall, I think we are facing structural changes in areas that have previously been stable. This is a development which will affect all the Riksbank’s departments and we will need to make strategic decisions regarding the way forward.””

“One may get into a negative spiral which can threaten the cash infrastructure,” Dillen said. “It’s those types of issues we are looking more closely at.”

So it seems that the Swedish authorities have at last realised that going cashless may well not be in the interests of the Swedish public.

Could this result in the reversal of actions taken to hasten cashlessness?

Needless to say, developments will be watched with great interest.

7. Summary

- Swedish banks have been investing in non-cash payment solutions since the early 1960s, before the first ATM was installed in the country.
- Sweden is the one of the few markets in the world where the value of cash in circulation is falling.
- The decline in cash use cannot be said to be solely as a result of the Swedish public exercising free choice. The example of the increasing use of cash on buses immediately prior to that use being banned is a perfect illustration of choice being removed.
- Delegation by the Riksbank of the management and distribution of cash to a subsidiary of the commercial banks has led to cash being more expensive and less readily available.
- Lack of cash processing services at bank branches and a reducing number of ATMs have made cash inconvenient to use for the public and businesses – and therefore less popular.
- Pooling of ATMs by banks, as implemented in Sweden, is unlikely to lead to appropriate funding of innovation.
- The criteria for removing ATMs makes it inevitable that there will be fewer and fewer ATMs going forward.
- Only government intervention in the public interest can halt the journey towards a cashless future. As of February 2018, such intervention looks possible.

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