

FOOD FRAUD

A growing problem that is hard for consumers to swallow

€ MONEY

PENSIONS

MOTOR INSURANCE COSTS

☕ LIFESTYLE

STUDENT BANKING

STUDENT CHARGES

📷 PRODUCT TESTS

PRINTERS

The Consumers' Association of Ireland

The Council is the policy-making body of CAI. Members are elected from within the CAI's membership at the Annual General Meeting.

Council Members

Chairperson

Raymond O'Rourke

Vice-Chairperson

Michael Kilcoyne

Hon Secretary

Elaine Bolger

Hon Treasurer

Richard Donohue

Council Members

Timothy Murphy

Steen Bruun-Nielsen

James Wims

September 2016

CAI Member Invitation: Annual General Meeting

Monday 26th September 2016 at 2pm

The Central Hotel
1-5 Exchequer St
Dublin 2

Agenda

- Welcome
- Minutes of meeting of 19th August 2015
- Hon Treasurer's Report
- Appointment of Auditors
- Chairperson's Address
- AOB



Our Reports

Reports in Consumer Choice are based on market research, laboratory tests or user surveys, all of which are independently and scientifically conducted. Free goods are never accepted for testing – all samples are purchased. Occasionally items may be borrowed for review purposes only.

The reports are produced in the main by our own Editorial staff. Some material is occasionally drawn from other foreign independent consumer magazines.

Because Consumer Choice carries no commercial advertising it is not swayed by bias or influence and can point out advantages and flaws in goods and services that other magazines may not be able to do.

Reports on any article relate only to the articles or goods mentioned, and not to any other article of the same or similar description. We do not necessarily price or report on all brands or models within the class, and the exclusion of any brand or model should not be taken as a reflection on it.

Consumer Choice

Consumer Choice is published by the Consumers' Association of Ireland (CAI) Limited, a wholly independent, non-government, non-profit making body. CAI was founded in 1966 to protect and promote the interests of the consumers of goods and services, and to enhance the quality of life for consumers. CAI is registered with charitable status: CHY 8559.

Advertising is not accepted for publication. Consumer Choice is available on a subscription basis only. To facilitate banking requirements all cancellations must be advised, by letter or email only, a full 30 days in advance. Where a bank applies a €24 chargeback fee for a Member/customer advised cancellation we will deduct same from any refund requests. To subscribe please write to:

Consumer Choice,
26 Upper Pembroke Street,
Dublin 2.

Tel (01) 637 3961
Email cai@thecai.ie
www.thecai.ie

Social Media:



Published Material

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form without obtaining prior permission from the Council by contacting the Consumer Choice office. It may not be used for any form of advertising, sales promotion or publicity.

© Consumers' Association of Ireland 2016
ISSN 0790-486X

Staff

Policy and Council Advisor
Dermott Jewell

Design/Typeset

Denzil Lacey (Zava Media)

Managing Editor

Clodagh O'Donoghue

Researchers

Róisín Moloney Weekes

May Celliff

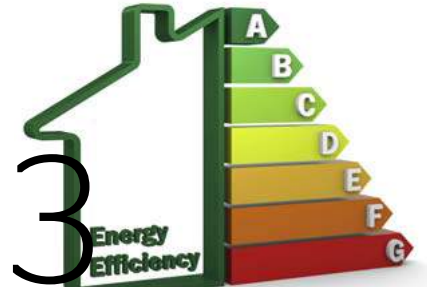
Sarah Breathnach

Atousa Motameni

Contents

 www.twitter.com/The_CAI

 www.facebook.com/



MONEY

6 Money News

The latest developments in money matters, including the massive increases facing consumers in both motor insurance premiums and rental costs.

19 Pensions 101

With fewer and fewer generous pension schemes being provided by employers, *Consumer Choice* outlines the basics of PRSAs, which offer flexibility to employees working in a contract-based market.

LIFESTYLE

13 Student Guide

With term time starting soon for many, *Consumer Choice* offers a quick course in student finances, examining what charges may be incurred, what the banking options are, and what student discounts are on offer.

FOOD & HEALTH

10 Food Fraud - *Leaving a bad taste in consumers' mouths*

Consumer Choice investigates the unpalatable problem of food fraud and the urgent need to protect the consumer against the unsavoury practices of greedy profiteers.

PRODUCT TESTS

22 Printers

Whether it is back to school or back to business after the summer, a great printer can be a household essential. Our labs have tried and tested 37 models to find which ones deliver quality prints without guzzling ink



News Briefs

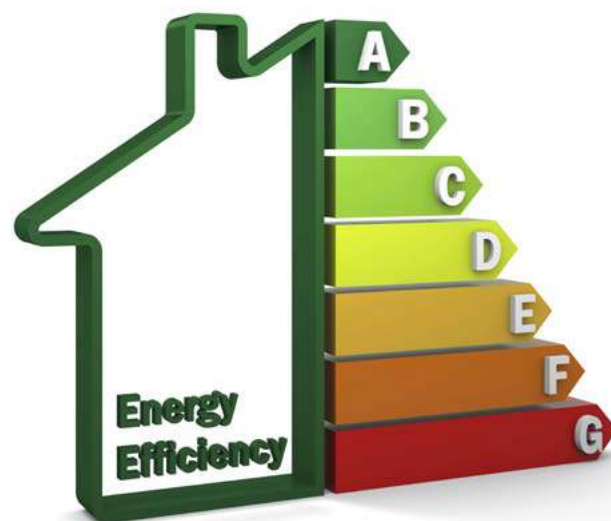
The latest information
on the world of the
consumer

Don't Try This at Home

At the Lowlands festival held in the Netherlands, on August 21st last, the Smartphone Orchestra performed their first 'gig'. With the assistance of a very large audience of smartphone-carrying concert-goers there was the collective creation and playing of a piece composed especially for this occasion with every smartphone making its own unique contribution.

The team behind this event had contributed an entire year to programming and testing the technology. But, beyond the technology challenges was the need to discover a new way of composing music. Writing for huge numbers of smartphone speakers demanded an entirely new format as the composition, in this case the ring tones and notification alerts of smartphones, make up the key ingredients. Following several test sessions and a nod of approval from the much-respected Brian Eno, Lowlands laid down the marker for future considerations. You can have a look at the event by logging on at <https://www.facebook.com/smartphoneorchestra/>.

Alternatively, you could consider joining with me in establishing the ~~stoptechnophobesmakingamockeryofrealmusic~~ campaign!



Patently Clear Insight

A team from the School of Engineering at the US University of Maryland has been studying the means to increase energy efficiency in the home. In a paper now published, they see merit in replacing glass with transparent wood and outline how the development of a transparent wood will provide better thermal insulation with minimal loss of light.

Transparent wood contains the same cell structure as normal wood but is cut against the grain, resulting in the natural channels in the wood guiding sunlight through them in a similar way to a glass window.

It is then bleached, which gives the wood its distinctive brown colour, and is then soaked in epoxy to add strength - while making it almost completely clear.

They also discovered that, while the channels in the wood transmit light, it blocks the wavelengths that carry heat. The team has lodged a new patent on their design - well, they wood, wooden they.

DID YOU NOT GET MY MESSAGE.....



China has launched the first quantum satellite into orbit with the goal of developing a telecommunications platform that would be resistant to and defeat all hacking attempts.

Quantum satellites are the product of researchers using highly complex subatomic particles to communicate with complete security. Any attempt made to access the message engages the satellite, which changes its form and either deletes or alters the message.

Until now, quantum messages have been sent between researchers on land, so it is not entirely new in concept. However, the means of establishing the platform by satellite is unique. This is almost entirely because it presents an enormous challenge to the owners. The orientation of satellites in orbit is vitally important. For it to work at all the satellite must be located, with pinpoint accuracy, in a location where it would not be affected by any interference from the planet's atmosphere. I think I've seen this film.

I Know, You Know and Now We Know that They Know

Google has just released its challenge to Skype - *Duo*, a new video-calling app only for mobile phones.

It is basic in that it does not allow group-calling - but it is fast. In addition, and a very nice feature, is that in the course of a call that you start on wi-fi at home or in the office, as you walk out the door it immediately switches to cellular data without any loss of connectivity. It also allows you to see who is calling - where they are, who is with them and what they are doing - before you answer or take the video call.

On the precautionary side - it works entirely from your contacts list - which is very simple. However, this is Google, and, upon 'free' download, you give them the right to contact your contacts if they so wish! Privacy - Hah!

It's How Much a Litre!?



Courtesy of Silicon Republic, I learn how on the 12th of November, 2014, for the first time in history, a small but mobile laboratory called Philae was placed on a comet as it hurtled through space. This was achieved by an enormously talented team at the European Space Agency (ESA), including one of our own, Laurence O'Rourke, together with other astrobiologists and astronomers.

Some years prior to this, Planetary Resources was formed with the business plan of flying a spacecraft to an asteroid and mining minerals that could be worth millions of dollars. It now seems that the discovery of water on the comet provides

the real potential for such wealth.

To explain - the average astronaut requires one tonne of water for a six-month stay in space. To send that same amount of water to Mars would cost somewhere in the region of \$50million. When you take into consideration that a trip to Mars takes longer than six months, you're left with not only a financial challenge, but a logistical one, too.

This is where the ESA and Planetary Resources believe there is a future gap in the market to create the 'gas stations to the stars'. They did say 'hurtled' didn't they? I'm not budging.



Consumers' Association of Ireland CAI NEWS

Our 50th Birthday TTIP Conference will take place on September 9th in the Conference Room at the offices of the European Commission, Europe House, 12-14 Lower Mount Street, Dublin 2. The conference will debate how the Transatlantic Trade Investment Partnership discussions are expected to affect the food we consume and produce.

Speakers Brian Hayes, MEP, and CAI Chairman Raymond O'Rourke will be joined by BEUC Director-General Monique Goyens and EU-US Trade, Policy Officer at the European Commission in Brussels Brian Kilgallen to debate the issue under the Chairmanship of *safefood* CEO Ray Dolan.

We hope to see some of you there!

Food & Health

 by Clodagh O'Donoghue

Precautionary approach needed for chemicals harmful to health

European consumer watchdog BEUC, of which the Consumers' Association of Ireland (CAI) is a member, is again focusing on the need to better safeguard consumers from the endocrine-disrupting chemicals (EDCs) present in so many everyday items – from skin creams to children's toys to food containers. With scientists having linked these chemicals to such health problems as infertility, obesity and cancer, BEUC has criticised a recent proposal from the EU Commission, saying it falls short of protecting consumers.

In an October 2013 *Consumer Choice* report, we discussed a study that revealed the presence of certain EDCs in a wide range of cosmetics and toiletries and at that time we were awaiting a proposal from the EU Commission that would

address the issues raised. As the EU currently lacks concrete criteria that define what EDCs are and how they should be regulated, current EU legislation largely fails to safeguard consumers. In June 2016, almost three years after a legal deadline, the EU finally proposed such criteria but BEUC considers the proposal to be inadequate. Under the proposed criteria, the EU would need to postpone any action until scientists can demonstrate that a chemical actually harms consumers. This is in conflict with the precautionary principle, under which, in the face of scientific uncertainty, protective action must be taken. It has been the position of both BEUC and the CAI that a science-based precautionary approach that reduces consumers' exposure be used as a guiding point in developing new EU rules in the area

of EDCs. BEUC has recently published a position paper that highlights a number of key facts, including the difficulty of consumers avoiding products containing EDCs and the existence of safer alternatives in most cases. The paper also notes findings from Belgian and French consumer associations that reveal that high-end products are not necessarily EDC-free, with expensive brand skin creams found to contain EDCs whereas cheaper options did not.

BEUC's position paper concludes by reminding EU leaders that "safety delayed is all too often safety denied" and urges that Europe's inaction on endocrine disruptors comes to an end for the sake of the health of today's consumers and that of future generations.

The lunchbox challenge

For parents, back-to-school time means back to the tyranny of preparing school lunches each morning. Achieving a balance between what children will be sure to eat and what will be nutritious and wholesome can be a challenge. Healthy lunch policies in many schools mean that parents can more easily withstand any potential pressure to include treats in the lunchbox but they still have to find enough nourishing options to adequately fill and hydrate their child to help keep them energised and alert through the school day. Parents also must be mindful of any known serious food allergies present in the classroom, avoiding various allergens such as nuts or seeds when necessary, and are often reminded of the need to avoid the boredom of the ubiquitous ham sandwich by including inspiring, interesting and preferably

homemade lunch alternatives. And given the high percentage of children in a 2015 National Parents' Council survey who said that they found it difficult to eat their school lunch in the time allotted, another consideration for lunchbox choices should be the ability to eat all items relatively quickly. Add to that already busy mornings with parents who are rushing out to work themselves – and filling the daily lunchbox becomes a test of physical and mental ability akin to *The Krypton Factor*.

For inspiration and ideas to get away from the two slices of bread and one of processed ham scenario, the *safe food* website, www.safe food.eu, offers information on what should go into a healthy lunchbox, some tips for how to vary the contents and a five-day lunchbox planner. Hopefully, parents will be able to find ideas there

that will appeal to even the fussiest eaters among small and not-so-small school-goers. Suggestions include using leftover rice or pasta to make interesting salads and keeping different bread types – bagels, wraps, wholemeal rolls and so on – in the freezer to vary sandwich selections. And when it comes to hydration, water and milk remain the very best choices.

Disheartening though it is to find a full lunchbox in the schoolbag at the end of the day, from a food safety point of view it is important to discard all perishable items immediately and not to be tempted to recycle them for the next day. And washing all beakers and lunchboxes in warm soapy water every evening is another food safety must.

Money News

 Money News by *Róisín Moloney* *Weekes*

What is behind motor insurance premium hikes?

“Consumers pay more while we wait for governmental action and, in the meantime, the blame game continues.”

Ireland’s motor insurance crisis is seeing motor premiums shooting up by as much as 38% in the last year and, over the last three years, premiums are up 70%. Aviva says that claims for whiplash are adding €130 to the cost of the average motor insurance premium. Aviva, like other insurers, blames excessive and inconsistent regulation for the increased premium costs.

Fianna Fail’s Michael McGrath has said that the Government needs to accelerate work on the task force established in July in an effort to understand the crisis. Consumers pay more while we wait for governmental action and, in the meantime, the blame game continues.

The Law Society of Ireland’s Ken Murphy points out that in the centre of this debate are the victims of accidents who seem to generate little or no sympathy from the media, the public or politicians. We are reminded that such victims are individuals with no corporate or collective clout and so often are victims of negligent drivers, resulting in injuries of all levels. Mr Murphy points out that these victims are continuously tainted by insurance industry advertising campaigns with the suspicion of fraud and exaggeration. Comments of the former president of the High Court, Mr Justice Nicholas Kearns, point to the fact that, if insurance

companies believe that fraudulent claims are being made, the correct procedure is for them to defend these cases in court and, having done so successfully, report them to the Gardaí. Is this not the case because the overwhelming majority of claims by victims of accidents are perfectly legitimate?

People taking personal injury claims must swear an affidavit verifying any allegations on which their claim is made and it is an offence to make a statement that they know to be false or misleading. Medical evidence is given by a member of the medical profession in support of any such claim and the victim, as well as any witnesses, can be cross-examined on their evidence at the trial. When this rigorous procedure is taken into account, it certainly undermines the argument that false claims are so common as to be behind premium hikes.

In correspondence to the Minister of Finance earlier this year, the Central Bank stated that insurance firms until recently enjoyed a prolonged period of reasonable investment return on the asset side of their balance sheets and this income stream provided insurance firms with the scope to compete aggressively on price. The Central Bank further advised that recent premium increases are designed to restore core underwriting profitability. It

is, therefore, argued that internal issues within the insurance industry, such as reductions on investment returns and consequent inability to continue competing aggressively on price, are some of the reasons behind these massive premium increases.



Capital consumers not so confident

The Economic and Social Research Institute (ERSI) has recently published its report on the Dublin Consumer Sentiment Index for second quarter 2016. The Consumer Sentiment Index for Dublin weakened in the second quarter to 153.2, from 159.8 in the first quarter of the year. It is argued that this pullback in sentiment reflects notably greater uncertainty about the economic outlook and job prospects that has made Dublin consumers more cautious in their spending plans. The weakening sentiment was evident from consumers' negative assessment of the current buying climate for major household durables, prospects for the job market and the general economic outlook. Dublin consumers were

more positive, though, in their assessment of their current household finances.

Despite this decline in the second quarter of 2016, other elements of the survey report more positive responses from Dublin consumers in relation to the economic and financial environment affecting them. Almost 54% of Dublin consumers expect that the labour market will improve over the next 12 months and more than 37% of Dublin consumers expect their household financial situation to improve over the coming year. This trend in decreasing consumer sentiment was also seen outside Dublin, but it was based more on concerns regarding the outlook for household finances.



Rental Price Report

Daft.ie has recently published a report on current trends in the Irish rental market, the results of which show the highest level of rent on record. With rents rising nationwide by an average of 3.9% in the second quarter of 2016, this is the largest three-month increase since early 2007. If you are resident or hoping to become

resident in the capital city you can look forward to dealing with rents 5.2% higher than they were in early 2008 - Celtic Tiger times.

With just 3,600 homes to rent nationwide on 1st August 2016, down from 4,600 on 1st August 2015, choice for renters is diminishing rapidly. Monthly

rents are almost 10% higher than they were last year, meaning that we are also paying more for less, further fuelling increases.

Since bottoming out in late 2011, the average rent nationwide has risen by a massive 39.7% and has for the first time exceeded the peak reached in 2008.

Table 1: Average rent Dublin

Dublin	Average rent	% increase on 2015
North County	€1,272	11.7%
North City	€1,419	11.5%
City Centre	€1,505	10.0%
South City	€1,642	11.3%
South County	€1,735	10.8%
West County	€1,351	12.5%

Table 3: Average rent Munster

Munster	Average rent	% increase on 2015
Clare	€633	9.9%
Limerick County	€665	7.3%
Kerry	€645	4.5%
Cork County	€748	11.2%
Cork City	€1,051	18.2%
Tipperary	€650	5.2%
Limerick City	€829	15.5%
Waterford County	€669	7.3%
Waterford City	€712	13.3%

As to be expected, September brings with it student housing demands and this year is no different, but it could be argued that it is getting increasingly difficult for students to secure accommodation when they are competing with professionals who want 12-month leases as opposed to the 9-month average student lease.

While the Government has tried to encourage homeowners to rent a room in their homes by offering guaranteed tax

relief up to €12,000 per annum and a fast-track minimum paperwork process, this measure is not enough to address the

rental market issues and the housing crisis that Ireland is enduring. Instead, the underlying problem needs to be addressed by building new homes. Other issues, such as Central Bank rules that impact on renters'

Table 2: Average rent Leinster

Leinster	Average rent	% increase on 2015
Longford	€521	13.4%
Westmeath	€700	12.7%
Offaly	€668	10.5%
Laois	€690	12.0%
Kilkenny	€735	9.8%
Carlow	€713	7.3%
Louth	€835	14.6%
Meath	€972	15.6%
Kildare	€1,036	12.5%
Wicklow	€1,036	9.3%
Wexford	€647	7.8%

Table 4: Average rent Connacht/Ulster

Connacht/Ulster	Average rent	% increase on 2015
Donegal	€533	3.6%
Sligo	€588	3.8%
Mayo	€568	3.4%
Galway City	€932	13.9%
Galway County	€631	7.0%
Roscommon	€550	5.3%
Cavan	€574	11.7%
Monaghan	€609	8.2%
Leitrim	€490	7.5%

ability to buy their own home, need to be looked at, together with the tax treatment of landlords, which, it is argued, continues to fuel rent increases also.



Product/Tech News

Product News by *Clodagh O'Donoghue*

Getting out of a sticky situation

With consumers ever mindful of the need not to waste food and other consumables, it is irritating to have to discard almost-but-not-quite-empty bottles of ketchup, honey, shampoo and other viscous substances because the contents cannot be squeezed, shaken or otherwise coaxed out. Now, an advanced non-stick coating is being developed that will enable sticky liquids that might otherwise cling to the sides of containers to flow freely, letting you make use of every last drop.

The new coating is the work of a team at Colorado State University, which is using edible wax as a safer and greener alternative to many current non-stick coatings that rely on fluorocarbon chemicals to provide their water resistance. The problem with such chemicals is that they can decompose into perfluorooctanoic acid, which is toxic to humans and stays in the environment and body for a long time. The US Food and Drug Administration has banned certain perfluorochemicals from being used in takeaway packaging (such as grease-proof pizza boxes) due to the harm they can cause to health and the Consumers' Association of Ireland has called for similar action to be taken here.

In contrast, the Colorado team's liquid-repellent coating is made from beeswax, which works similarly to fluorocarbons, and carnauba wax - both of which are edible and nontoxic. The team has found a way to dissolve the wax so it can be sprayed onto a surface. Tests involving a polystyrene cup treated with the new coating showed various liquids, including maple syrup, flowing more freely from the cup than they would from a regular polystyrene cup, leaving not a drop behind. The coating is designed specifically for food packaging but could be put to other uses. It is still in developmental stages, however, and needs further work to be able to withstand harsh and abrasive environments.



Pedal power

Regular cyclists may look down on owners of electric bikes or ebikes as lightweights who are taking the easy way out, but a new study has shown that, even though they may not provide the same workout as conventional bikes, ebikes still bring users health benefits.

The EU ebike market has seen significant growth over the last couple of years, with many advocates pointing to a range of positives, including the fact that ebikes are massively cheaper to run and more environmentally friendly than a car, are safer than a motorcycle due to limited speeds, do not require a license to operate, and can be used on bike lanes, through parks and so on.

The inclusion of a motor and battery on an ebike means that a lot less human effort is required, certainly - and proponents maintain that this is a good thing, as it means that those who might otherwise hesitate or be unable to supply the energy and stamina needed for a regular bicycle commute can still get at least some exercise.

Researchers at the University of Colorado Boulder have completed a study that confirms this stance, finding that, in such cases, using an e-bike does indeed improve fitness levels. The study involved 20 volunteers who got little regular exercise and who typically used a car for their daily commute. For four weeks they were asked to use an electric-assist bike at least three days a week for a minimum of 40 minutes each day. While cycling, participants wore a heart rate monitor and a GPS device and were allowed to set their own speed and level of intensity, with the average speed revealed by the GPS data to be 20 km/h. At the end of the month's trial, participants underwent health checks in a lab and were found to have significantly improved their cardiovascular health when compared with readings taken prior to the test. In addition, their aerobic capacity had increased and their blood sugar control was better.

Ebikes are particularly good for negotiating steep hills or battling against the wind, so if those are factors putting you off cycling to work, a motorised option could be the answer.

The products featured on these pages have not been tested by the Consumers' Association of Ireland and their inclusion here is not, in any way, an endorsement of them.

Cheesy music

International fast food restaurant chain Pizza Hut has transformed the humble cardboard pizza box into a twin turntable on which to play and mix tracks. Touted as "the world's first playable DJ pizza box", the cardboard device uses conductive inks printed into a bespoke circuit board to create two turntables and a set of controls.

Pizza Hut is no stranger to eye-catching gimmicks – a while back we reported on its subconscious menus that use retina-tracking technology to take your order by reading your mind and its Asian branches are set to see a humanoid robot serve customers by the end of 2016.

Launched in mid-August, the chain's innovative pizza box connects to DJ software on a laptop or smartphone via Bluetooth. Based on a modern DJ setup, the printed circuitry on the pizza box offers a crossfader for use with the two turntables as well as pitch controls, cue buttons and the ability to sync music. Powered by a battery that comes with the box, the system can recognise taps, long presses and finger swipes. A range of DJ software can be used and once they have completed setup, users can select a track for each deck and mix between the two or produce a scratching effect by moving a hand across one of the virtual turntables. If this sounds your kind of thing, the bad news is that these boxes are a limited edition and only available in UK branches of Pizza Hut.



Pizza Hut's DJ Pizza Box

Portable gluten test

US startup Nima has developed a sensor that can detect the presence of gluten in foods in minutes. For those who suffer from coeliac disease, an autoimmune condition that can lead to intestinal damage, even small amounts of gluten can cause major health difficulties and although restaurants may offer gluten-free menu options, this new device can add extra reassurance and remove any potential anxiety about what is in a dish.

The company touts its device, called the Nima, as being portable and discreet. Measuring just three inches high with a triangular shape, the Nima is used with a disposable capsule, into which a pea-sized amount of food is inserted. The capsule then slides inside the device where the food undergoes a biochemical test that uses antibodies sensitive to gluten. The antibodies bond with any gluten that may be present, producing a change in colour and an optical reader can detect any such changes, causing a "gluten found" message to be displayed. The whole process takes two to three minutes and the sensor can identify the presence of gluten in quantities of 20 parts per million and over. Results are automatically synced with the Nima smartphone app, into which users can input information about what they ate and share this with other Nima users.

Interestingly, the company is looking to extend its product range in 2017 to include sensors that can detect traces of peanuts and milk. It is also seeking to recruit users from the restaurant industry, promoting the device as a way to validate gluten-free menu offerings.

A pricey investment, the Nima starter kit - including the device, three one-time-use capsules and a carry pouch - costs \$199 and disposable capsules will need to be purchased on an ongoing basis. Shipping is due to start shortly in the US.

Taking a step back

A promotion by McDonalds in the US and Canada inspired by the Olympic Games backfired recently, with the fast food chain needing to take swift action. It is generally accepted that sitting down to a McDonald's meal is likely to involve a high calorie intake, but that is not so bad if you intend to work it off afterwards. With so much athleticism and physical prowess on show during the Olympics, McDonalds moved to swap the toys typically included in a Happy Meal for a wearable fitness tracker suitable for children. The Step-It Activity Band is a pedometer-type gadget worn like a wristwatch and is presumably intended to motivate children to take the requisite number of steps and attain the necessary activity levels to burn off the calories consumed by eating the Happy Meal in the first place. In terms of calorie content, a typical Happy Meal would range from around 400kcal (chicken nuggets, small fries and a diet drink or water) to about 630kcal (cheeseburger, fries and a regular soft drink or milk) - adding up to quite a few steps needed to offset those calories. As well as calculating steps taken, the device also blinks based on how fast the child is moving, encouraging more energetic forms of activity.

The arguably well-meaning promotion was short-lived, however, amid reports that some children were experiencing skin irritation as a result of wearing the brightly coloured device. The chain stepped in and lost no time in withdrawing the bands from their Happy Meal offerings due to such concerns.

According to national guidelines, children should be getting 60 minutes of moderate to vigorous exercise each day. Parents who want to encourage more activity and track their child's progress can consider other wearables suitable for small folk, such as the LeapFrog LeapBand (£27), which comes with parent controls and can suggest 50 active challenges to keep children moving.



Food Fraud

- Leaving a bad taste in consumers' mouths

Consumer Choice
journeys into the dark
underbelly of the
European food
industry, examining
the unpalatable
problem of food
fraud.



REPORT by Sarah Breathnach

Food fraud is an established enterprise worth tens of millions of euro to unscrupulous operators within the food industry. Although food fraud is not a new problem, the European Parliament has recently warned that its increasing preponderance is becoming a grave threat to the rights of the consumer. While there is currently no definition of food fraud in EU legislation, the Food Safety Authority of Ireland (FSAI) describes it as being the illegal placement of food on the market with the intention of deceiving the customer, usually for financial gain. The FSAI further explains that food fraud can manifest itself in a multitude of ways. On certain occasions, there may be blatant deception whereby consumer safety is directly threatened while, in other instances, more subtle methods are used to deceive the consumer as to the true nature of the product. Regardless of what form food fraud takes, it remains, at the very basic level, a major infringement of the consumer's right to be informed.

Notable cases

Consumers may recall certain high-profile cases of food fraud, such as the horsemeat scandal of 2013 in which central European meat plants were found to be mislabelling quantities of horsemeat as beef for export across the continent. The presence of equine DNA was discovered in various products, including beef burgers, pre-made beef lasagne and frozen spaghetti bolognese sold in supermarkets throughout Ireland and the rest of Europe. The discovery led to the European-wide withdrawal of such products from supermarket shelves, sparking widespread public concern.

A more distressing example occurred just one year earlier, when 26 people in the Czech Republic died as a result of drinking counterfeit vodka and rum. The alcohol was found to be laced with methanol - a cheap and highly toxic industrial ingredient commonly used in antifreeze. The use of potentially dangerous ingredients

including chloroform and methylated spirits in counterfeit alcohol was reported again recently, this time in the UK. An undercover investigation by Channel 5 found one east London factory producing an average of 7,000 bottles of counterfeit vodka per day. Although there have been no fatalities as a result of this adulterated spirit, which flooded the British market, the UK's National Food Crime Unit recently announced that it believes that food fraud is costing the British public as much as £1.17 billion a year.

A recent report by the European Commission describes the subtle forms of food fraud, such as mislabelling, as becoming increasingly prevalent. Olive oil, fish, organic foods, honey, coffee, tea, spices, wine and certain fruit juices are thought to be among the most commonly counterfeited foodstuffs on the European market. In such cases, products are substituted with cheaper alternatives. Virgin olive oil is adulterated with cheaper grades; frozen products are sold as fresh; and caged hen eggs are labelled "free range". Fish products also have tended to be particularly precarious, with cheap white fish being sold as cod and farmed fish being sold as wild. False statements regarding the origin of products - for instance, imported meat sold as Irish - is another example often cited in the literature and a common concern for trusting consumers.

Why the problem persists

It is thought that fraudsters involved in organised deception are most likely to target areas where they perceive the greatest return financially for the least effort and lowest likelihood of detection. It is therefore argued that the persistence of the problem stems largely from the fact that the rewards of committing food fraud far outweigh the risks involved. The probability of financial loss and worse, apprehension and conviction constitute the risk. For an individual to be willing to incur these risks there must be some other offsetting advantage, such as a high financial return from the crime. In the case of mislabelling food, for example, the incentive is based on the reality that the maximum fine of €30,000 is less than half the profit of €65,000 to be made from selling a single container of horsemeat as beef. Add to this, the extremely limited number of controls in place that make detection highly unlikely - especially with adulterations or substitutions where there are no public health or food safety

implications - and food fraud becomes a very attractive illicit activity indeed.

BEUC Report 2015

Last year, BEUC, the overarching European consumer watchdog of which the Consumers' Association of Ireland is a member, conducted a report on fraud within the European meat industry. The research highlighted frequent cases of incorrectly labelled meats, confusing product names and incomplete labels, which, for example, failed to highlight added water or did not declare the percentage of meat in the product. Cases of the illegal use of certain food additives and the fraudulent use of other species as a substitute, such as turkey sold as veal, were also described by investigators. Following the release of the report, BEUC called for food fraud to be a top priority across the EU in 2016. BEUC has lobbied the European Parliament to strengthen the current legal framework relating to food fraud so that responsible authorities will be better equipped to detect, dissuade and punish food fraud. Consumer agencies across Europe are united in the thinking that food labelling should be complete and accurate and that consumers should be able to trust the label on the food they buy. In the wake of the aforementioned high-profile food fraud scandals, it is imperative that consumer trust is rebuilt through active regulation. As the agri-food chain becomes more complex and global in nature, stricter controls at every step of the process from farm to fork are required in order to prevent breaches of legislation.



New EU clampdown

In June of this year, an outline of plans to implement more stringent food

controls from farm to fork was informally agreed by the European Parliament. The legislation will seek to create a more effective food safety control system ensuring that food bought within Europe is wholesome and safe for consumption. Part of the new agreement aims to help responsible authorities from each Member State to more effectively thwart deceptive practices by increasing the scope of risk-based unannounced inspections at each individual step of the food supply chain. The new regulations will also attempt to create a more flexible approach to cases, allowing authorities to react more promptly to emergency situations. Alongside this, clearer and more comprehensive rules will be provided to those within the food industry to eradicate ambiguity and safeguard standards. Any violations of the regulations, including fraudulent practices that do not pose a risk to human health - such as misrepresenting products as locally grown, organic or fair trade - will be taken very seriously. Ultimately, the proposal is intended to strengthen current enforcement laws, thereby reassuring consumers of the integrity of the food supply chain as BEUC had hoped. What is key, though, is that the penalties for engaging in food fraud, at any level, be sufficiently punitive to be an actual deterrent.

Efforts to stamp out food fraud at home

By global comparison, the standard of food safety here in Ireland is high. In 1999, the Food Safety Authority of Ireland (FSAI) was set up to coordinate food safety activities in Ireland from farm to fork. Since its inception, the organisation's efforts have been highly praised particularly within the European forum. It was, after all, investigations by the FSAI which resulted in Ireland being the first Member State to report the presence of horsemeat in beef on the European market. More recently, following a successful inspection of Ireland's beef production systems by US authorities, we became the first and only EU country to be entitled to export beef to the US since the BSE ban in 1996 - a testament to the country's credentials as a supplier of high-quality premium beef.

As part of its continued mission to ensure the highest food safety standards, the FSAI has established a Food Fraud Task Force, composed of representatives from a number of

enforcement agencies including the Health Service Executive, An Garda Síochána and the Department of Agriculture, Food and the Marine. It is the responsibility of the Task Force to communicate, coordinate and network with other groups both nationally and internationally so that intelligence and research regarding food fraud can be more easily shared. The Task Force is involved in awareness-raising activities, the improvement of monitoring and surveillance mechanisms and the training of enforcement officers. Alongside these activities, the Task Force employs tactics such as regular unannounced raids on producers and suppliers that are suspected to be a risk to the consumer.

How to spot potential food fraud

There is very little for consumers to go on when looking on the shelves for doctored food, as it is extremely difficult to identify whether the ingredients that are listed on food packaging are actually contained within. There are, however, a few red flags that consumers should watch out for. Research has found that liquid and ground foods are easiest to manipulate and products in these forms are therefore the most commonly degraded. When purchasing virgin olive oil, for instance, it is important to look for bottles that designate specific points of origin rather than labelling that simply states, for example, "from Italy".

In terms of ground foods, coffee is best bought whole, as instant versions can easily be bolstered by anything powdered and brown. Similarly, expensive spices such as saffron are relatively easy to fake, with strands of dyed onion being passed off as the real thing. It is recommended that saffron is bought in whole threads, which are much more difficult to synthetically engineer.



WHICH? FOOD FRAUD FINDINGS

Recently, *Which?* investigated food industry failings in the UK. The report revealed that lamb takeaways continue to be a popular target for adulteration, with 40% of samples tested being found to contain other meats. More than one in ten goat's cheese products tested contained sheep's milk and 25% of the dried oregano investigated contained the leaves of other plants, including dried olive leaves. The report also pointed to what could be hiding in the food eaten abroad by unwitting holidaymakers. Avoiding Brazil nuts in Brazil due to the presence of aflatoxins (cancer-causing chemicals) is advised, while wild forest berries and mushrooms from Switzerland, Ukraine and Russia (to name a few) are best not eaten due to fears that radioactive substances could still be present at a toxic level thirty years after the nuclear accident in Chernobyl. The advice to those travelling to Peru is to steer clear of shellfish - since 2008, a ban on shellfish imported into the EU from Peru has been in place after consumption was linked to an outbreak of hepatitis A.

Consumers should always be suspicious of normally expensive items at dramatically low prices. Labels that are crooked, poorly printed and contain spelling errors should sound alarm bells. Equally, packaging irregularities such as missing wrap-around seals on bottles is a tell-tale sign.

If you know or suspect food fraud is taking place, contact the FSAI with as many details of the suspected fraud as possible. A complaint can be submitted via email or through the website and the advice line can be contacted using the telephone number below (see *Useful contacts*).

consumer against the unsavoury practices of greedy profiteers.

Useful contacts

Food Safety Authority of Ireland

Website: www.fsai.ie

Email: info@fsai.ie

Advice line: 1890 33 66 77

The need for action

The food industry has always been particularly vulnerable to exploitation, and there is a long history of food legislation specifically designed to prevent consumers from being both cheated and harmed. Nevertheless, the growing complexity and increasing globalisation of the food industry means that it now faces unprecedented challenges to the integrity and safety of its food supply chain. Consumers are entitled to expect that their wellbeing holds a high value, enough to be supported by a system that oversees and controls food crises from the highest level. They are equally entitled to expect that a resolution and recovery system is in place and can be instantly enabled in a necessary event. To effectively combat this kind of serious and organised criminality in an industry that is thought of as a soft target, we believe that directed, resourced and supported efforts are required, with the power to enforce seriously deterring penalties. It is hoped that the new provisional EU agreements will be a step towards fully protecting the



Representing the consumer perspective

On 9th June 2016, the Consumers' Association of Ireland's Policy and Council Advisor Dermott Jewell spoke at a seminar entitled *Food Fraud, what's the impact on the consumer?*, held in Brussels. The event was cohosted by the BFSO (Belgian Food Safety Organisation) and the EWFC (European Working community for Food inspection and Consumer protection).



It Costs How Much?

Outlining third-level charges



REPORT by *Atousa Motameni*

At a glance

- Charges and fees
- College costs compared

Third-level education can create significant financial difficulties for students and their families. There has been much discussion about the future of higher education funding but, for the 2016-2017 academic year, the maximum rate of the student contribution charge (SCC) is €3,000. The SCC is an annual charge and must be paid by students either in full or in two instalments each year. Grants may be available for students who qualify. Although the SCC is a substantial sum of money, it does not cover many of the services that students will use throughout the year.

For students who have to live away from home, accommodation costs can be a significant and - in the light of the ongoing housing crisis - sometimes almost insurmountable burden, as discussed in the September 2015 issue of *Consumer Choice*. But these are not the only costs to be factored into any budget, as textbooks, locker usage,

gym memberships, parking and printing are among the services that require an extra charge. On the bright side, most universities offer free nurse, doctor and counsellor visits, but check with your specific university for more details. Depending on your course, there may be other charges for uniforms and lab or utility fees - you should be notified of these by your university upon entry into your course.

Each course at any university comes with tuition fees. However, if students qualify under the Free Fees Initiative then these fees are paid for by the State on behalf of the student. To be eligible for free fees, students must be residents of the EU or any of the countries in the European Economic Area (EEA) for at least three of the five years prior to beginning university and, additionally, must meet the relevant EU citizenship or nationality requirements. The Free Fees Initiative

also requires you to be a first-time undergraduate student enrolled in a qualifying course for at least two years. There are some exceptions to these qualification requirements and further information can be obtained through your local Citizens' Information Board or at www.studentfinance.ie. If you are a returning student or have changed your course in some way then you may no longer qualify for free fees and will potentially be footed with the entirety of the bill for tuition fees. There are some scholarships and tax relief available for tuition fees, so explore your options in this regard.

Below is a table that outlines some of the third-level charges for a selection of universities across Ireland. All figures were obtained online or by phone and are correct as of July 2016. For further information on fees and other third-level charges, please contact your university directly.

THIRD-LEVEL CHARGES AND FEES

	NUI Galway	GMIT	IT Sligo	NUI Maynooth	TCD	UCC	DIT	DCU	UCD
Student levy¹	€224	n/a	n/a	€125	€120 mandatory for sports centre, €8 optional USI levy	€165	n/a	€43	€247
Gym fee	€250 or PAYG ²	n/a	€90 or PAYG ²	€320 plus a joining fee of €100 or PAYG ²	€120 levy for all students	€290	€185 for full calendar year or PAYG ²	€250	€100 ⁷
Parking	€45 annually, free P&R ³	€10 annually	Some free, €2.50 per day	€40 annually	No on-campus parking available ⁶	Free P&R ³	n/a ⁶	Outdoor free, multi-storey car park €7 for six uses	€50
Locker fee (annual rate)	€15-€25	€20	n/a	€15 ⁵	€40 (which includes a €20 deposit)	Free	€20	€10	€15
Repeat exam fee	€295	€100	€50	€70	No fee	€35	€100	€190	€230
Student ID replacement	€20	€10	€5	€20	€20	€20	€10	€25	€20
Printing per page: black & white A4⁴	8 cent	10 cent	9 cent	8 cent	5 cent	6 cent	5 cent	8 cent	5 cent

Notes:

1. Student levy is in addition to the SCC charge of €3,000.
2. Pay as you go options available. Contact the university gym directly for more information.
3. Park and ride.
4. If you print double-sided there are savings for the second page. Colour printing generally costs more per page.
5. Lockers are assigned on a first come, first served basis and the fees are for the academic year.
6. Discounted rates at surrounding car parks are available with your student card.
7. This is for annual access to the swimming pool. Some gym facilities may be free with your student card following the completion of an induction.



Money in the Bank: Choosing a student current account



REPORT by *Atousa Motameni*

At a glance

- Eligibility
- Controlling your finances
- Calculated comparison

As you begin your university studies, you will also likely be moving into a new phase of your life. Considering the high cost of going to university, getting a student bank account is a great way to begin your journey into self-sufficiency. Whether it's managing your finances, allocating money for meals or saving up for a holiday, learning to budget is one of the rites of going to university that will also prepare you for the harsh financial realities of life afterwards. Luckily for you, banks incentivise student-focused products to attract potential life-long clients. A typical bank account includes quarterly, transaction, withdrawal and other fees, all of which are waived in a student account - so be sure to take advantage of what is on offer.

Eligibility

To open a student current account, most banks require you to be enrolled in a full-time third-level course, usually spanning at least one academic year. All the banks have options for Irish students who are studying abroad and international students studying in Ireland. The eligibility rules of some banks have an age minimum of 18 years old in order to apply. The table below provides you with a quick comparison of some of the most well-known banks in Ireland using updated information as of 7th July 2016 obtained online and by phone. Although we didn't include them here, credit unions are another banking option, especially if you are considering getting a student loan; visit your local branch for more details.

Controlling your finances

Unless you are looking into becoming a

banker in the future you might never have bothered learning the difference between APR and overdraft. Without getting too technical, here are explanations of a few different banking terms and processes so that when you are choosing a student account you can hopefully make a more informed decision.

Overdraft

Essentially, an overdraft occurs when you remove more money from your current account than is available. Banks generally charge a fee for overdraft services and many times the fee will be greater than the amount you were missing in the first place. Thankfully, sometimes this fee can either be reduced or waived for students up to a certain amount. The majority of the banks that we compare in the table below require students to specifically request and apply for an overdraft limit and only add the overdraft feature after the limit has been approved. For other questions regarding overdraft options, it is best to make an appointment to speak to someone in the branch.

Credit cards

Getting a credit card is a big step towards becoming a full-fledged adult. Most banks offer reasonably low limits for students so it can be a good time to get a credit card and begin establishing your credit rating. The Irish Credit Bureau (ICB) uses your timeliness on payments and any outstanding loans you may have to determine your credit rating. Your credit rating is then calculated into a single recognizable number (Credit Bureau Score) and published along with other details

of your credit history in your personal credit report. This credit rating will be used by potential lenders to assess your ability to pay for the more expensive things you attempt to buy. Although it may seem like something you needn't worry about until much later in life, it is good to get an early start so that when you do want to purchase a house or car in the future you will be in good standing. In order to keep your credit rating high, always try to pay in full so that you don't accumulate any interest. If you cannot pay the full outstanding balance, pay more than the minimum, which will also help you to curb some of the added interest and establish a good credit rating. Set reminders on your phone and calendar for when payments are due because the timeliness of the payments is as important as the amount you pay. If you ever find yourself exceeding your credit limit, there is usually an over credit limit that will be charged to your account. To avoid paying extra fees and unwanted interest, set up the online banking feature for your account and check it regularly. However, the general advice is that, if you cannot pay your bill each month end, then you should not have a credit card. Why not? Because credit cards make it easy to get into debt at high rates of interest and that is a no-brainer!

Student loans

University has become increasingly expensive, so taking out a loan is one way to pay for some of the added costs of attendance. Not all banks offer student loans, but some banks that do not offer student-specific loans might still allow you to apply for a personal loan for which you

will be assessed individually based on different factors, such as your course, year of university and your salary if you work. Your parents may consider taking out loans for the charges as well and, since they have a more established credit rating, their likelihood of getting a larger loan will tend to be higher. See the table below for more information about the comparative APR on student loans.

The Enigma that is APR

APR stands for annual percentage rate and is a calculation of the overall cost of your loan. It is expressed as an annual rate that represents the actual yearly cost of the funds borrowed, rather than just a monthly rate. It takes into account all the costs during the term of the loan, including any set up charges and the interest rate. This means that fees and charges are added to the loan amount before interest is calculated. As the consumer, this percentage is intended to promote your consumer rights by allowing you to more accurately compare bank and loan offers using the APR provided. The higher the APR, the more it will cost you to borrow money.

STUDENT BANK ACCOUNTS COMPARED

	AIB Student Plus Account	Bank of Ireland Student Account	Ulster Bank Student Account	KBC Student Current Account	PTSB Student Account
Account Fees					
Maintenance fees (€)	0	0	0	0	0
Transaction fees (€)	0	0	0	0	0
Unpaid item fee (€)	10	12.70	12.70	10	10
Student Overdraft					
Facility fee (€)	0	0	0	0	0
Overdraft limit (€)	1,500	Assessed individually	750 ¹	300	n/a
Overdraft interest (APR %) ²	0	0	0	0	n/a
Student Credit Cards					
Credit limit (€)	600	500 ³	450	300 ³	n/a
Introductory APR % on purchases	3.83% for 12 months	0% for 6 months	17.9	n/a	n/a
Standard APR % on purchases	20.3	20.2	35	18.25	n/a
Over credit limit fee (€)	7	0	8.50	7	n/a
Student Loans					
APR %	8.45	9.7	n/a	n/a	n/a

All figures listed in the table are correct as of 7th July 2016.

Notes:

1.You must be an existing Ulster Bank customer for at least 12 months to apply for an overdraft. If you receive a grant, you can apply for up to €1,500, depending on your grant level; if you don't, the maximum limit is €750. Students in a course of medicine, dentistry, law, accountancy, pharmacy, optometry, physiotherapy or veterinary science can apply for up to €2,500 in overdraft. All overdrafts must be repaid within one year of finishing your course.

2.These figures are for amounts up to your overdraft limit. If you surpass your limit, other fees may apply.

3.Changes to €1,000 after the second year.



Student Savings



REPORT by Atousa Motameni

At a glance

- **On the go deals**
- **Savvy shopping**
- **See the savings**

Alongside the great deals for student current accounts, make sure to take advantage of other discounted offers for students. There are several different ways to avail of these discounts, the easiest being using your university card given to you by your university. Some university cards, such as UCD's UCARD, can even be used as the key to your accommodation and as a charge card to pay for printing and laundry services on campus, so it's worth always keeping the card on hand. Typically, your university student card is accepted in retailers, restaurants, theatres, cinemas and other businesses in Ireland, but some may require that you purchase a separate discount card - such as the USIT, ISIC, or Student Leapcard - to receive the benefits. Be careful when looking online at discount cards. A lot of the participating companies listed would give you the discount simply with your university card so it may not be necessary to pay for these discount cards.

On the go deals

One card that is well worth the additional cost is the Student Leapcard. Not only will you get discounts for travelling by bus, train or tram all over the country, but a range of non-travel-related companies have partnered with Leap to provide you with further discounts. Discounted pay-as-you-go fares are also available for Dublin Bus, DART and some Bus Éireann city routes in Cork and Galway. For Dublin Bus, the student fare is capped at a maximum of €20 per week and €5 per day, which makes travelling in and out of the city much more cost-effective.

Savvy shopping

Whether you fancy a quick meal or an extravagant shopping spree there are

student discounts to be had for every taste all over Ireland. Boojum, McDonalds, Apache Pizza, FX Buckley, and Cactus Jacks are among the numerous food outlets offering a student rate or meal combo if you produce your university card upon request. Retailers such as Topshop, Vans, Oasis, Aldo, and others also have student deals with discounts ranging from 10% to 20% off clothing, sports equipment, and more. When you're out shopping for a new wardrobe for the new school year, bring your student card and reap the benefits of any student discounts available! Other restaurants and retailers may have similar discounts, so it never hurts to ask and bring your card in order to avail of these offers.

How to get a Student Leapcard

There are places, listed on the Student Leapcard website, all around Ireland that allow you to either get the card immediately at express agents or, in lieu of these, printerless agents that process your Leapcard request and post it to you. When you go to either of these locations, make sure to bring your university ID to prove you are a student, an application form (which you can either pick up at the site or download online) and €15 for the card. If you bank with AIB, it provides a voucher that is worth €12 for the Student Leapcard - so you would only need to pay an additional €3 with the voucher.



See the savings

There are significant savings for students in the entertainment industry. For those of you who fancy a night of theatre, almost every theatre venue in the country offers concession tickets for students. Generally, concession tickets are anywhere from €2 to €5 off the adult ticket price. The Abbey Theatre's standard rate for shows ranges from €18 to €40 whereas the student rate (also referred to as the concession rate) ranges from €13 to €25, providing students with the enrichment in the arts they seek without the burn in the wallet. Some concerts and other musical performances also offer concession tickets for students. When purchasing online or in person always chose the concession option so that you get the student price and bring your student card with you to the venue in case staff need to verify your student status upon arrival. GAA games and other sporting events also have a student concession ticket at a reduced price from the standard ticket; generally all you need

is to produce your university card in order to get this rate.

Cinemas have a similar pricing scheme for students. Cinemas generally have an on- or off-peak time and pricing for everyone varies depending on the time of day you go to see a movie. Whether you book online or in person you can avail of refreshing savings for students. Below is a table featuring the student ticket prices offered by some cinemas around the country. Sometimes it is better to buy your tickets in the cinema rather than online to avoid paying online booking fees. Also, certain cinemas have special 'student days' in which a student would receive extra discounts on tickets, but for some of these deals you may need to purchase your tickets in person. Student days typically fall on a Monday, Tuesday or Wednesday. Additionally, cinemas may offer meal and ticket combos for a discounted price on certain days or times throughout the week.

CINEMA PRICING FOR STUDENTS

	Peak (€)	Off-Peak (€)
DUBLIN		
Vue Liffey Valley ¹	8.49	7.99
Cineworld	9.40	8.40
Movies @ Dundrum ²	7.00/8.00	5.00/6.00
Coolock UCI	8.00	7.50
Savoy	7.00	7.00
Lighthouse	8.00	6.50
Ormonde, Stillorgan	8.50	5.50
CORK		
Omniplex	7.10	8.10
Gate Multiplex	8.00	5.50
ATHLONE		
IMC	6.00	5.00
LIMERICK		
Storm, Castletroy	7.00	6.50
GALWAY		
Eye	7.00	5.20

Prices are correct as of July 2016. All prices listed in the table are for regular 2D movies. Watching movies in 3D, IMAX, GALATIC or with other special effects may come with an increase in price.

Notes:

1. The price listed is for standard seating only - luxury, VIP and other seating is available at an additional cost.
2. Movies @ Dundrum has separate prices for early evening (5-7pm)/evening (7pm on); afternoon (before 1pm)/matinee (1-5pm).



Pensions 101

Consumer Choice looks at the changing world of pensions and outlines the basics of PRSAs, which offer flexibility to employees working in a contract-based market.



REPORT by *Róisín Moloney Weekes*

At a glance

- Taking stock
- PRSAs
- Tax reliefs

The goal posts seem to have moved in recent years, with fewer and fewer generous pension schemes being offered by employers together with longer life expectancy and retirements running for 20 to 40 years, resulting in retirement planning becoming more important. For many of us, pension planning can get demoted on the list of financial priorities when we are dealing with more immediate needs, such as childcare costs, mortgages and healthcare expenses - to name a few of the demands people must juggle.

Taking stock

Where to begin? In order to make pension planning a top priority, you must consider your position on retirement. Firstly, you will no longer be able to earn an income and must rely on either savings or State benefits. Consider also that your earning capacity is likely to be at its highest right before you retire and, unless you have made proper provision in terms of your retirement, the result could be a massive drop in lifestyle as you enter retirement.

Whatever age you are, it is not too late to begin - or too early for that matter. The first step is to take stock of what you already have: Are you part of one or more company or occupational pension schemes already? Are you entitled to a State pension based on your employment? Are you entitled to a non-contributory old age pension? Have you started a pension plan already? If so, it must be established what any existing pension would be worth to you. You must couple this with the other assets you have. Will your home be paid for by the time you retire? Do you have other savings and investments that you expect to remain until retirement? What debts and expenses must you discharge while you are in earning years?

The aim should be to make the transition from earning to not earning as smooth as possible by reducing your disposable income while earning and placing this money in a pension fund to help increase retirement income when you will no longer earn a living. This planning is known as income equalisation. The

savings you allocate to your retirement are usually held in a pension scheme or a retirement plan and are basically savings with benefits. The benefits come in the form of tax breaks and access to your savings is restricted - generally you cannot touch this money until you reach a minimum retirement age. The type of scheme that you will save with is dependent on your employment category: employee, self-employed or director.

PRSAs

As an employee, a Personal Retirement Savings Account (PRSA) is an option worth getting to grips with. These accounts are designed to give people a flexible way to save for retirement. They are owned by individuals and are not dependent on employment status and they are also transferable from job to job. In today's employment environment, where contract work is on the increase and the old-fashioned reliable pensionable jobs are few and far between, PRSAs can offer a practical solution to saving for retirement.

PRSAs are not just savings accounts - they are like an investment account that you can use to save for your retirement. You can make regular contributions to your PRSA and these are tax deductible within certain limits. PRSAs offer flexibility as you can increase, decrease or stop contributions at any time without any charge or penalty. They are also portable and can be transferred from job to job as you move without incurring a penalty or a charge.

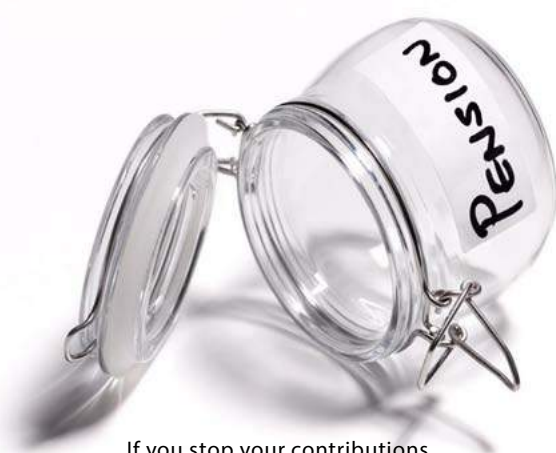
PRSAs are available to you regardless of your job type or employment status. You can hold a PRSA in conjunction with another personal pension but the contributions will be added together for the purposes of calculating tax relief. PRSAs carry risk similar to any investment account and so the value of your PRSA can increase or decrease depending on the investment fund performance. It should be noted that PRSAs are not backed by Government guarantee.

Your employer may contribute to your PRSA but is not obliged to do so. What your employer is obliged to do is to enter into a contract with a PRSA provider and notify excluded employees that they have the right to contribute to a standard PRSA. Excluded employees are those whose employer does not offer an occupational pension scheme or they are not eligible to join, or if they are included in an occupational pension scheme, it is for death in service benefits only or it is not possible to make any additional voluntary contributions.

Employers must allow PRSA providers reasonable access to excluded employees in their workplace and allow reasonable paid leave of absence to set up a standard PRSA. The employer must also make deductions from payroll at the request of the employees and remit these to the PRSA provider without any charge.

PRSAs are offered by investment firms, insurance companies, and credit institutions, which go through an application process with the Pensions Authority to become authorised PRSA providers. The Pensions Authority, together with the Revenue Commissioners, jointly approves PRSA products and the Pension Authority supervises the activity of PRSA providers together with the Central Bank of Ireland. A list of authorised providers can be found at www.pensionsauthority.ie.

PRSA providers may impose a minimum contribution to your PRSA but this cannot be more than €300 per annum and €10 per electronic transaction or €50 per transaction for other methods of payment. You can contribute as much as you wish to your PRSA but the tax relief you get on contributions depends on your age and earnings (see the table below). You do not have to make regular contributions to your PRSA - however, it is normal to make monthly payments when arranging your PRSA through your employer. If paying directly into your PRSA, most providers allow you to pay yearly, quarterly, monthly, or even weekly as well as allowing you to make additional top-up contributions at any time. You can be flexible with your contributions, and although some providers will require prior notice, you can stop, start, increase or decrease your contributions at any time. Most providers have indexation options that allow you to increase your regular contributions in line with inflation each year.



If you stop your contributions at any stage you will not be penalised or charged for doing so - such changes will, however, reduce the pension benefits you can expect at retirement. In some circumstances, if your contributions are over a certain level and you consistently meet your monthly contributions your provider may offer rewards or bonuses. If you change jobs and your new job allows you to become a member of an occupational pension scheme, you may transfer your PRSA into that scheme. If your new job is not pensionable or you become self-employed, you can continue to contribute to your PRSA.

Tax reliefs

Consumers must be aware of the benefits of PRSAs, particularly in the form of tax reliefs allowable on contributions. These reliefs are based on age. Relief is given at your marginal/higher tax rate, but there is no relief in respect of PRSI and the Universal Social Charge. If you make contributions but you do not get tax relief on them because you exceed the tax relief limits, you can apply for tax relief in the future.

Age	Contribution Limits - % of Net Relevant Earnings
Under 30	15%
30-39	20%
40-49	25%
50-54	30%
55-59	35%
60 and over	40%



Tax is not charged on investment income or capital gains earned by PRSAs - however, income tax may be payable on pension benefits taken from the PRSA after retirement. There is also a maximum lifetime limit on the amount of pension fund that can be built up and this includes all sources except State pensions.



Investment decisions

Investment decisions are made by you as the owner of the PRSA. However, all PRSAs have a default investment strategy that will dictate how funds are invested if you decide not to make an investment decision. Your PRSA fund is typically invested in company shares (equities), bonds issued by governments (sovereign bonds), bonds issued by companies (corporate bonds), property and cash. Your PRSA provider must give you information in relation to the types of assets in which your PRSA is invested. When considering the level of risk you wish to take with investing your funds, consider how long it will be until you retire and how much you expect in pension income. Generally, as you approach retirement, your investment in higher risk funds should decrease.

Every six months, your PRSA provider must send you an investment report that outlines the performance of your funds. It is important that you consider this statement with a view to any changed circumstances you may have, as you may need to make changes to your contributions or investments accordingly.

When you retire, your fund will consist of the total contributions paid in by you and the investment return earned on those contributions minus the PRSA provider's charges. At this point, you will have the option of taking a lump sum of 25% of your PRSA fund's value and this will

be tax-free up to a value of €200,000. You will pay tax at 20% between this amount and €575,000. You can use the remainder of your PRSA fund to buy an annuity or leave the funds in your PRSA and withdraw from them at any time, subject to Revenue requirements. Alternatively, you can transfer the balance to an approved retirement fund.

If you die before you retire, your PRSA fund will be transferred to your estate and will be administered as any other assets would be, subject to inheritance tax. The charges for a standard PRSA are capped and they cannot increase above the upper limits throughout the lifetime of your PRSA contract. The maximum charges are a 5% charge on each contribution you pay, and a 1% annual fund management charge, based on your PRSA fund value. There are no caps on charges on nonstandard PRSAs - so if a nonstandard PRSA product is proposed to you, ask why. Make sure to seek independent financial advice if you are getting a PRSA directly rather than through your employer. More information on tax relief and PRSAs can be found on www.revenue.ie.

If you have any complaints about an unsatisfactory service provided or any overcharging, you can contact the Pensions Authority or the Pensions Ombudsman.

With the world of pensions quickly changing, retirement planning has never been more important. No matter your age or employment status, each of us should be considering our options for our retirement.

Useful contacts

Office of the Pensions Ombudsman

4th Floor, Lincoln House
Lincoln Place
Dublin 2

E-mail: info@pensionsombudsman.ie
Tel: +353 1 676 6002

The Pensions Authority

Verschoyle House
28-30 Lower Mount Street
Dublin 2
D02KX27.

Email: info@pensionsauthority.ie
Tel: 01 613 1900
LoCall: 1890 656565



CALCULATED DECISION

To focus the mind now on how much you need to begin putting aside each month or year in order to enjoy your desired retirement income, the Pensions Authority offers a very useful Pension Calculator on its website at http://www.pensionsauthority.ie/en/Calculators/Pensions_Calculator/. Into this online calculator, you enter your age, current annual gross salary, and intended retirement age, as well as your target pension as a percentage of your pre-retirement salary. If you are currently in a pension scheme, you can include your current fund value and any monthly contributions you or your employer may make. The calculator will use these details to provide your projected annual retirement income and note any potential shortfall.*

If you are not on track to receive your target income, any additional contributions required are presented both as a percentage of your salary and in yearly contributions from a number of different age points. As is made abundantly clear from the results provided, the sooner you start paying into a pension, the less you need to pay each year. You are also advised to keep your pension contributions under regular review to ensure that you are on target. So whether you have yet to consider a starting a pension or are interested in finding out how your current pension arrangements are likely to work out, the Pension Calculator is a handy resource.

*A long-term average conversion rate is used to convert your accumulated retirement fund into an annual pension, though, of course, the actual conversion rate at the date of your retirement may be different.



Printers

Want to print out those summer snaps? Getting back to school or back to business? A great printer can be a household essential – but which ones will deliver quality prints without guzzling ink?



REPORT by Clodagh O'Donoghue

At a glance

- 37 printers on test
- Ink matters
- Nine Choice Buys

Whether you have school- or college-going children, are running a home office, or simply need to occasionally print out photos, tickets, receipts, flight details and so on, a printer that churns out good-quality prints and does not cost a small fortune in ink cartridges is a necessity for many. The main decision to make is whether an inkjet or laser printer best suits your needs. Inkjet printers tend to be typically smaller, quieter, cheaper than a comparable laser printer and great for colour prints and photos. Although laser printers are typically more expensive to buy and bulkier to house, they come into their own when printing text, which they do faster than inkjets and are often very speedy indeed. They also are generally cheaper to run in terms of ink costs, especially for black-and-white pages. Most do not impress when printing photos, however – so if this is important to you, an inkjet printer that is relatively frugal with its ink will likely be a better option.

Printers on test

All of the inkjet printers on test are all-in-one models, meaning that they can scan and copy as well as print – and some also have a faxing function. They all print in colour as well as in black and white, and models with auto duplexing can be set to automatically print on both sides of the page – great

for cutting down on the amount of paper needed on bigger printing jobs without having to stand beside the printer and manually turn over the pages. And devices with an automatic document feeder allow multiple pages to be inserted at one time for scanning and copying purposes.

The laser printers on test are divided into standard devices that concentrate on the basics of printing and multifunction machines that additionally offer scanning, copying and sometimes faxing. Given that laser printers are best suited to delivering black text fast, some of the models on test are monochrome printers that focus on black-and-white pages and do not offer the option to print in colour.

Wi-fi connectivity has become virtually standard and is present on the vast majority of the 37 printers in our current batch, including more modestly priced models. As well as allowing you to print wirelessly from all computers or laptops in your home, you can print from mobile devices like smartphones or remotely via Apple AirPrint or Google CloudPrint services. Models with NFC (near-field communication) capabilities let you print by simply touching a compatible device to the printer.

Those with big ideas may need a printer capable of producing A3 pages. However, such large-scale devices will not

come cheap – the current A3 inkjet printers on test come in at around the €300 mark.

Ink matters

The price of the printer models in our current batch varies hugely, from a modest €57 to a hefty €350, but although we all like a bargain, not all lower-priced options will represent great value in the long run. This is because ink costs can really push up the total cost of your printing, especially as inkjet printers typically use ink to clean themselves when you leave time between prints. A certain amount of ink will never make it to the page as it is used to clean print heads when the printer is turned off and then on again or when you only print occasionally. The amount of ink consumed in this maintenance process can be very substantial indeed, with occasional printing sometimes guzzling four times more than the amount of ink needed for continuous printing – pushing up overall ink costs significantly.

Of course, there is no guarantee that a printer that costs several hundred euro will be any more frugal with ink than an inexpensive model – and it is not possible to tell by simply looking at the device. The degree to which a device will be economical with ink usage is tested in our labs so you can consult the ratings on our table to see how each model fared. Laser printers do not use

ink in their maintenance cycle in the same way and are consequently generally cheaper to run – though multifunction models tend to be dearer to buy initially.

Another ink-related element to watch out for is whether your printer has a combined cartridge for coloured inks or individual cartridges. With a combined cartridge, some printers will cease to print when one colour has run out, so that the cartridge will need to be changed even though the other colours may not be used up.

Third-party ink cartridges

Research released by our UK colleagues at *Which?* some years ago noted that, measure for measure, branded printer inks were significantly more expensive than vintage champagne. Given this disquieting statistic and the fact that many inkjet printers guzzle pricey ink in their cleaning process, it is not surprising that many consumers are turning to third-party alternative ink cartridges to significantly reduce costs. Third-party alternatives are ink cartridges that are not produced by the manufacturer of the device but that are a copy of the original branded cartridge and compatible with the printer in question. The quality of these third-party inks has improved greatly in recent years, as has their reliability. Many users may

have reservations about using third-party cartridges with concerns about whether they will work in their printer and whether using them will even cause damage to the printer. From research and surveys, it would appear that such damage is, in fact, a relatively rare occurrence, particularly if you buy a good-quality generic cartridge, which should still offer a substantial saving on the cost of the branded offering. In addition, it should be noted that printer-branded ink cartridges are not totally problem free and that third-party ink cartridges that fail to work should be readily replaced by the retailer as being “not as described or fit for purpose” under the Sale of Goods and Supply of Services legislation.

A recent *Which?* report has noted, however, a problem being encountered when the printer software updates itself periodically over the internet. Anecdotally, it would appear that such updates can cause a printer to reject or no longer recognise a third-party alternative ink cartridge that had been happily working away prior to the update. However, an update will not always affect cartridges and third-party ink retailers are quick to develop newer cartridges to work around any problems caused by updates.



1. Epson Expression Premium XP-830 €190 (inkjet printer)

If you are looking for a great all-rounder with plenty of bells and whistles, the **Choice Buy** Epson Expression Premium XP-830 could be a good option. Although not cheap, you get a lot for your money with this all-in-one colour inkjet printer that can also fax – and it is quite frugal in terms of ink usage, keeping running costs down and helping to offset the initial purchase price. Print speeds are decent and the quality overall is very good both for text and photos, with graphics prints particularly impressive. The copying and scanning functions work very well generally and excel when it comes to colour copies and photo scans. Those who like to print from all manner of mobile devices will appreciate this printer's wi-fi connectivity and compatibility with Apple AirPrint and Google CloudPrint. As well as being able to automatically print double-sided, it also offers automatic double-sided scanning and copying and an automatic document feeder. In addition, it is an exceptionally easy printer to use and maintain.

2. HP Envy 5644 €150 (inkjet printer)

The **Choice Buy** HP Envy 5644 is a versatile inkjet printer that can copy and scan, though it does not have a fax function. It does a great job of producing high-quality black text quickly and its colour prints and photos are also very decent and won't take too long to emerge. The scanning and copying functions perform well, with colour copies looking especially good – and speeds overall are reasonable. This printer scored top marks for ease of use and it offers plenty of handy features, including the ability to print automatically on both sides of the paper and a second smaller input tray for photo paper so that you will not have to swap trays when printing the occasional photo. A memory card slot offers direct printing without having to turn on the PC and, with wi-fi connectivity and compatibility with CloudPrint and AirPrint, there are plenty of options for printing from mobile devices. Importantly, maintenance-ink usage on this printer is low, keeping ink costs below average.



3. Canon Pixma MG3650 €57 (inkjet printer)

A very cost-effective option and the cheapest printer on test, the **Choice Buy** Canon Pixma MG3650 has a lot to offer for its modest purchase price. This colour inkjet printer is a multifunction device that can scan and copy as well as print – and it does a good job across the board, with testers particularly impressed by its colour copying and scanning capabilities. Print quality is very decent but although text prints are delivered fairly quickly, you will have to wait a bit for printed images and photos. With no built-in screen, you won't be able to print straight from a memory card but you can use the wi-fi connectivity to print directly from a range of devices, with AirPrint and CloudPrint compatibility also on offer. Not only is this printer inexpensive to buy, it is fairly cheap to run, with a below average amount of maintenance ink used – it does have a combined colour cartridge though, so you may end up having to replace the cartridge for all three colours when only one colour has been used up.



4. HP Envy 5540 €104 (inkjet printer)

The **Choice Buy** HP Envy 5540 is another multitasking inkjet printer with the ability to scan and copy and some useful features thrown in. Although print quality may not match that of the highest-end devices, it is very satisfactory nonetheless with text that is pretty sharp and good colour prints. Photos may be a little soft, however. In terms of speed, printing text is reasonably swift, and photos and images emerge in about two minutes. Both monochrome and colour copies look great and this device does a fairly good job of scanning also. Built-in wi-fi and compatibility with AirPrint and CloudPrint make for a range of wireless printing options and handy features include automatic double-sided printing to help cut down on paper usage. In all, this is a solid performer, and it is also quite cost-effective to run, with not too much ink wasted on cleaning the print heads – though the combined colour cartridge could push up ink costs if you have to replace the whole cartridge when one colour runs out.



5. Epson Expression Premium XP-530 €130 (inkjet printer)

The **Choice Buy** Epson Expression Premium XP-530 is an all-in-one inkjet printer that excels when it comes to printing colour graphics and images, delivering sharp and vibrant results very swiftly. Photo prints are a little less punchy but very decent and this printer does a good job with black-and-white text also – though print speeds here are on the slow side. The copying function again impresses with the sharpness of its colour copies and photos scan particularly well with this device. As well as built-in wi-fi and AirPrint and CloudPrint compatibility for wireless printing, you can use the small touchscreen display to print from a memory card without having to turn on your computer. Inkjet printers commonly use ink to clean print heads, but this one uses less than most, helping to reduce overall ink costs and making this a fairly cost-effective machine to run – and the automatic double-sided printing feature cuts down on paper usage too.



25. Samsung Xpress M2885FW €270 (laser printer, all-in-one)

The first of our laser printers and the highest-scoring device in our current batch, the **Choice Buy** Samsung Xpress M2885FW is a hard-working, multitasking machine. It has the ability to fax as well as print, scan and copy and is speedy at all tasks, living up to the 'Xpress' billing in its title. This Samsung model can print only in black and white but the results are sharp and high-quality, especially for text pages – and everything is delivered very swiftly indeed. Laser printers are pretty economical with ink anyway but this device is exceptionally cheap to run, helping to somewhat offset the hefty purchase price. This printer also performs well when scanning and copying, both of which functions are easy and fast to use. With NFC support as well as compatibility with AirPrint and CloudPrint, there are plenty of options for connecting with mobile devices and handy features include an automatic document feeder and a large-capacity paper tray with space for 250 sheets.



26. Samsung Xpress C480FW €260 (laser printer, all-in-one)

The **Choice Buy** Samsung Xpress C480FW is another multifunction laser printer that can scan and copy – and it also has a fax function. As well as printing excellently sharp black text, this device can also print in colour and results here are generally very good. As with most laser printers, photo prints are somewhat disappointing, however, with some graininess. This Samsung model excels when scanning, delivering sharp detail. Testers were less impressed with the copying function, though results here are decent enough. Laser printers are generally swift and though not the fastest model, prints emerge reasonably quickly. With no automatic duplexing, pages will have to be turned manually for double-sided printing. This device offers an automatic document feeder for scanning and copying multiple pages and NFC is available for superfast and easy printing from NFC-compatible tablets and smartphones. With no ink wasted cleaning print heads and generally frugal ink usage, this laser printer won't cost too much to run.

31. HP Colour Laserjet Pro M252dw €220 (laser printer, standard)

You will not be able to scan and copy with the **Choice Buy** HP Colour Laserjet Pro M252dw but it will perform all printing tasks to a good standard. This standalone laser model can print in colour as well as in black and white and text pages are crisp and sharp. Graphics pages are less impressive, however, and, as with most laser printers, photo prints suffer from a degree of graininess. Prints are delivered swiftly with even colour pages not taking too long to emerge. Laser printers are frugal with ink as there is no ink wasted cleaning print heads and this device will be economical to run. There is a wide range of networking options with Ethernet and wireless wi-fi connectivity for printing from PCs and mobile devices along with support for AirPrint, CloudPrint and NFC 'touch-to-print' technology. The colour touchscreen offers a preview of what you are about to print and this device can be set to automatically print on both sides of the page.



Test change

The importance of ink usage as a factor in the overall purchasing decision is now reflected in our tests, with total ink costs accounting for 20% of the overall score. Energy consumption of printers is generally fairly low and though our labs still measure energy usage, the rating no longer impacts the overall total. Laser printers have to work harder to impress us –and they need to score a little higher than inkjet printers to achieve **Choice Buy** status.



32. Samsung Xpress M2026w €90 (laser printer, standard)

The **Choice Buy** Samsung Xpress M2026w is a modestly priced standard laser printer that sticks to the basics and performs them very well. There are no scanning or copying functions and this device cannot print in colour but its black-and-white text pages are nicely crisp and sharp and spreadsheets are decent too. Graphics and images printed in monochrome do not fare as well, however. This Samsung model takes the 'Xpress' in its title to heart, delivering all types of prints very quickly. There is no automatic double-side printing on offer, so those who want to print on both sides of the page will have to turn the paper manually. Laser printers tend to be thrifty in terms of ink usage and this device is no exception, with inexpensive running costs added to the relatively affordable purchase price making this a good value option for those who want their black-and-white prints fast and are not fussed about added features.

MODEL		SPECIFICATIONS				TEST PERFORMANCE												SCORE %
	Price	Mono-chrome or colour (M or C)	Auto duplexing	Automatic document feeder	Fax	Max/min paper size	Wi-fi	NFC	Printing (60%)*			Scanning (7.5%)	Copying (7.5%)	Total ink costs (20%)	Networking (5%)	Power consumption (0%)		
									Printing quality and speed	Printing convenience	Printing versatility							
Inkjet printers (all-in-one)																		
1	Epson Expression Premium XP-830	190	C	✓	✓	✓	A4/A6	✓		★★★★	★★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	75
2	HP Envy 5644	150	C	✓			A4/A6	✓		★★★★	★★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★	★★★★★	73
3	Canon MG3650	57	C	✓			A4/A6	✓		★★★★	★★★★	★★★★	★★★★★	★★★★	★★★★	★★★★★	★★★★★	71
4	HP Envy 5540	104	C	✓			A4/A6	✓		★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★★	71
5	Epson Expression Premium XP-530	130	C	✓			A4/A6	✓		★★★★	★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	70
6	HP Officejet Pro 8610	220	C	✓	✓	✓	A4/B7	✓		★★★★	★★★★	★★★★★	★★★★	★★★★	★★★	★★★★★	★★★★	68
7	Brother MFC-J6720DW	320	C	✓	✓	✓	A3/A6	✓		★★★★	★★★	★★★★★	★★★★	★★★	★★★★★	★★★★★	★★★★★	67
8	Canon Pixma MG6850	156	C	✓			A4/A6	✓		★★★★	★★★★	★★★★★	★★★★	★★★★	★★	★★★★★	★★★★★	66
9	HP Officejet 3830	93	C		✓	✓	A4/A6	✓		★★★★	★★★★	★★	★★★★	★★★★★	★★★★	★★★★	★★★★★	66
10	Brother MFC-J480DW	260	C	✓	✓	✓	A4/A6	✓		★★★★	★★★★	★★★★★	★★★★	★★★	★★★★	★★★★★	★★★★★	65
11	Canon MG7750	160	C	✓			A4/A6	✓	✓	★★★★	★★★★	★★★★★	★★★★★	★★★★	★★	★★★★	★★★★★	65
12	Epson Expression Photo XP-960	290	C	✓			A3/B7	✓		★★★	★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	63
13	Brother MFC-J4625DW	219	C	✓	✓	✓	A3/A6	✓	✓	★★★	★★★	★★★★★	★★★★	★★★	★★★★★	★★★★★	★★★★★	62
14	Brother MFC-J5625DW	290	C	✓	✓	✓	A3/A6	✓		★★★★	★★★	★★★★★	★★★★	★★★	★★★★	★★★★★	★★★★★	62
15	HP Envy 4520	75	C	✓			A4/A6	✓		★★★	★★★★	★★★★	★★★★	★★★★★	★★★	★★★★	★★★★★	61
16	Epson Workforce WF-7620DTWF	290	C	✓	✓	✓	A3+/A6	✓		★★★	★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★	★★★★★	60
17	HP Officejet 4650	120	C	✓	✓	✓	A4/A6	✓		★★★★	★★★★	★★★★	★★★★	★★★★	★★	★★★★	★★★★★	58
18	HP Deskjet 3630	57	C				A4/A6	✓		★★★	★★★★	★★	★★★★	★★★★	★★★★	★★★	★★★★★	58

USING THE TABLE
Star ratings are out of five.

SPECIFICATIONS
Price: Typical retailer’s price if you shop around.
Auto duplexing: The printer can be set to automatically print on both sides of a page.
Automatic document feeder: The printer has an automatic document feeder for copying, scanning and faxing multi-page documents.

TEST PERFORMANCE
Printing quality and speed: Rating for the print quality and timing for one A4-page black-and-white letter, an 8x10-inch photo, a spreadsheet with graphs and charts, and a page with colour graphics and images. Ratings are given for clarity, sharpness, colour accuracy and the smudge and moisture resistance of the printed material.
Printing convenience: Rating includes ease of installation, printing different types of documents, and maintenance as well as start-up time and noise.
Printing versatility: Rating for the range of features provided by the printer, including printing options, auto-duplexing, the presence of a preview screen, and the ability to print from memory cards and Pictbridge.
Scanning: Rating includes the quality, speed, convenience and versatility of the scanning function when scanning magazine pages, photos, text documents and 3D objects.
Copying: Rating includes the quality, speed, convenience and versatility of the copying function when copying both in colour and in black and white.
Total ink costs: Rating for the amount of additional ink used during periodic maintenance cycles, including the ink used when the cartridge is initially inserted into the printer, as well as the ink consumption measured during continuous-use and intermittent-use tests.
Networking: Rating includes network sharing and the ability to print from mobile devices over wi-fi, through AirPrint and Google CloudPrint, from email over the internet and using NFC (near-field communication).
Power Consumption: Rating for the energy used when the printer is idle, in stand-by mode and switched off.

Useful contacts

Canon Ireland
tel 01 6990990
www.canon.ie

Epson
tel 01 4367742
www.epson.ie

HP Ireland
tel 01 5339808
www.hp.com/ie

Samsung
tel 0818 717100
www.samsung.com/ie

MODEL		SPECIFICATIONS				TEST PERFORMANCE												SCORE %
		Price	Monochrome or colour (M or C)	Auto duplexing	Automatic document feeder	Fax	Max/min paper size	Wi-fi	NFC	Printing (60%)*			Scanning (7.5%)	Copying (7.5%)	Total ink costs (20%)	Networking (5%)	Power consumption (0%)	
										Printing quality and speed	Printing convenience	Printing versatility						
Inkjet printers (all-in-one) <i>cont'd</i>																		
19	Epson Expression Home XP-432	90	C				A4/A6	✓		★★★	★★★★★	★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	58
20	Canon Pixma MG5750	140	C	✓			A4/A6	✓		★★★★	★★★	★★★★★	★★★★★	★★★★	★	★★★	★★★★★	57
21	Epson Expression Home XP-235	60	C				A4/A6	✓		★★★	★★★★★	★★	★★★★	★★★★	★★	★★★★★	★★★★★	56
22	Epson Expression Home XP-335	74	C				A4/A6	✓		★★★	★★★★★	★★★	★★★	★★★★	★★★★	★★★★★	★★★★★	55
23	Epson ET-2550	300	C				A4/B7	✓		★★★	★★★★	★★	★★★★	★★★★	★	★★★	★★★★★	51
24	Epson ET-2500	275	C				A4/A6	✓		★★★	★★★★	★	★★★★	★★★	★★★★	★★★	★★★★★	50
Laser printers (all-in-one)																		
25	Samsung Xpress M2885FW	270	M	✓	✓	✓	A4/A6	✓	✓	★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	★★★★★	★★★★★	82
26	Samsung Xpress C480FW	260	C		✓	✓	A4/A6	✓	✓	★★★★	★★★★	★★	★★★★	★★★	★★★★★	★★★★★	★★★★	74
27	HP Laserjet Pro MFP M277dw	333	C	✓	✓	✓	A4/A6	✓	✓	★★★★	★★★★	★★★★★	★★★★	★★★	★★★★★	★★★★★	★★★	71
28	Brother DCP-9020CDW	350	C	✓	✓		A4/A6	✓		★★★★	★★★★	★★★★	★★★	★★★	★★★★★	★★★★★	★★★★★	62
29	Samsung Xpress SL-C1860FW	360	C		✓	✓	A4/A6	✓	✓	★★★	★★★★	★★	★★★★	★★★	★★★★★	★★★★★	★★★★	58
30	Brother DCP-L2500D	120	M	✓			A4/A6			★★★	★★★★	★★★★	★★★★	★★★★	★★★★★	★★	★★★★★	57
Laser printers (standard)																		
31	HP Color Laserjet Pro M252dw	220	C	✓			A4/A6	✓	✓	★★★★	★★★★	★★★★★	na	na	★★★★★	★★★★★	★★★★	79
32	Samsung Xpress M2026w	90	M				A4/A5	✓	✓	★★★★	★★★★	★	na	na	★★★★★	★★★★★	★★★★★	75
33	Samsung Xpress SL-C1810W	260	C				A4/A6	✓	✓	★★★★	★★★★	★	na	na	★★★★★	★★★★★	★★★	69
34	HP Laserjet Pro 200 M201dw	205	M	✓			A4/A6			★★★★	★★★★	★★★★	na	na	★★★★★	★★★	★★★★★	64
35	HP Laserjet Pro P1102w	100	M				A4/A6	✓		★★★★	★★★★	★	na	na	★★★★★	★★★	★★★★★	59
36	Brother HL-1210W	80	M				A4/A5	✓		★★★	★★★★	★	na	na	★★★★★	★★★★★	★★★★★	55
37	Brother HL-L2340DW	130	M	✓			A4/A6	✓		★★★	★★★★★	★★★★	na	na	★★★★★	★★★★★	★★★★★	52

*When scanning and copying functions are not available, the printing rating accounts for 75% of the overall score.



*Visit our website
www.thecai.ie*

Follow us on Facebook & Twitter



www.facebook.com/ConsumersAssociationIreland



www.twitter.com/The_CAI