

AccessionIndex: TCD-SCSS-V.20221220.001

Accession Date: 20-Dec-2022

Accession By: Dr.Brian Coghlan

Object name: Extract of Irish Times issue of 3-Nov-2022

Vintage: 2022

Synopsis: An article by Dr.Karlin Lillington on the unveiling of the Ludgate plaque.

Description:

A blue plaque in honour of Percy Edwin Ludgate was unveiled in October, 2022, one hundred years after his death, by the Provost of Trinity College Dublin, Prof Linda Doyle, as part of a national series of commemorative plaques honouring leaders in Science & Technology. A (probably the) leading computer science journalist in Ireland, Karlin Lillington, was in attendance, and wrote a very interesting article about the event, published in the Irish Times on the of 3rd November, 2022.

Many thanks to Brian Coghlan for donating this item.

The homepage for this catalog is at: <https://www.scss.tcd.ie/SCSSTreasuresCatalog/>
Click '*Accession Index*' (1st column listed) for related folder, or '*About*' for further guidance.
Some of the items below may be more properly part of other categories of this catalog, but are listed here for convenience.

Accession Index	Object with Identification
TCD-SCSS-V.20221220.001	Extract of Irish Times issue of 3-Nov-2022, An article by Dr.Karlin Lillington on the unveiling of the Ludgate plaque, 2022.
TCD-SCSS-V.20221015.001	Unveiling of a Science Plaque to Percy Edwin Ludgate, Videos and photographs of the unveiling of the Ludgate Plaque, 2022.

References:

1. Wikipedia, *Percy Ludgate*, see:
https://en.wikipedia.org/wiki/Percy_Ludgate
Last browsed to on 20-Dec-2022.

Business & Technology & Innovation

Thursday, November 3rd, 2022

Editor Clarin Hancock Twitter @IrishTimesBiz email finance@irishtimes.com

Tax receipts distorting picture, says Donohoe

Minister reacts as latest numbers point to another spike in corporate tax take

Receipts generate €16.6bn in the 10 months to the end of October

EION BURKE-KENNEDY

Boonant corporate tax receipts are creating an "artificially positive picture" of the public finances, Minister for Finance Paschal Donohoe has warned. He was speaking as the latest exchequer returns pointed to another major spike in business tax receipts.

The tax generated €16.6 billion for the 10 months to the end of October, €5 billion – or 69 per cent – ahead of the same period last year. Receipts for October alone were €2.3 billion, which was €800 million up on the same month last year.

Full-year receipts for the 10 months to the end of October are now expected to come in at around €20 billion, making it the second largest tax take for the Government ahead of VAT.

Strong performance The windfall is linked to the strong performance of Ireland's multinational sector, which is dominated by pharmaceuticals and technology companies, which, in many instances, saw a pickup in demand for their products and services during the pandemic.

The Department of Finance said the increase related to profits in a small number of companies in the multinational sector, "which are unlikely to be repeated next year".

The Government has been repeatedly warned about the concentration risk associated with corporate tax here, with just 10 firms, thought to include Apple, Microsoft and Google, which all have major European bases in Ireland, accounting for 60 per cent of receipts.

Mr Donohoe said that the strength of potentially volatile corporate tax receipts continued to provide an artificially positive picture of the public finances.

"As I have warned on many

occasions, while these receipts are welcome, it is imperative that the Government does not build up permanent fiscal commitments on the basis of revenues that may prove transitory," Mr Donohoe said.

Newly-established fund The Government is planning to set aside €5 billion of additional revenue from corporate tax in the newly-established National Reserve Fund by the end of next year.

The latest exchequer returns show the Government collected almost €64 billion in taxes overall in the 10 months to the end of October, which was up €13 billion or 25 per cent on an annual basis. Income tax receipts came to €23.9 billion by the end of October. That was €3.2 billion ahead of VAT.

66 per cent for the business tax are set to come in at around €20 billion

tion, or 15 per cent, ahead of the same period last year, reflecting strong employment growth.

VAT receipts for the year to date stand at €15.5 billion, an increase of €2.9 billion, or 23 per cent, on the same period in 2021, reflecting the bounce back in retail spending since Covid. However, the department cautioned that there was a significant base effect in the VAT figures "as the economy was still in lockdown through the early months of 2021, depressing VAT receipts and flattening the comparison".

The stronger than expected numbers generated an exchequer surplus of €7.3 billion in October, a turnaround from a deficit of €7.4 billion this time last year, which equates to a year-on-year improvement of almost €15 billion.

Services sector loses momentum in October

LAURA SLATTERY

Service sector activity growth in Ireland continued to lose momentum in October, but there were some "quite encouraging" signs compared to other economies, the latest AIB purchasing managers index (PMI) survey suggests.

Demand growth remained strong, but below the trend shown since the second quarter of 2021. This was accompanied by a relative easing of inflationary pressures, although input prices and charges both continued to rise sharply overall.

Service providers continued to expand workforces at a solid pace as expectations picked up since September. While the overall index reading of 53.2 was down from 54.1 seen in September, it remained above the 50 level, signalling an overall expansion rather than a contraction.

The AIB Irish Services PMI for October showed a further loss of momentum in growth in the sector, said AIB chief economist Oliver Mangan. "As in September, though, the headline business activity index was again weighed down by a weak performance by the transport,

tourism and leisure sectors. The continued solid expansion in business activity in Ireland is in marked contrast to the trend elsewhere. The flash services PMI readings were all in contraction territory in the US, UK and eurozone in October," he noted.

'Quite encouraging' The main components of the Irish survey "were also quite encouraging," Mr Mangan added.

"Growth in new business remained strong, with a notable marked rebound in new export business. There was an other significant increase in backlog of outstanding business, which firms linked to staff shortages as well as the good growth in new business, with the rate of growth reaching a three-month high."

Mr Mangan said it was encouraging to see strong readings for new business, outstanding business and employment evident across all four sub-sectors covered in the survey. "Meanwhile, firms' outlook for the next 12 months picked up from September's two-year low to its highest level since July," he said.



Ibec lowers economic growth forecast and warns of market instability

EION BURKE-KENNEDY

Employers' group Ibec has downgraded its growth forecasts for the Irish economy, citing the "dampening effects" of rising prices and higher energy costs on consumer spending.

In its latest quarterly outlook, the organisation also warned that the global economy was facing a painful reset on the back of higher interest rates, one that is likely to trigger "further instability" on financial markets.

Ibec forecast domestic demand in the economy here would grow by 3 per cent next year, down from a previous forecast of 4 per cent.

In terms of gross domestic product (GDP), the more standard measure of growth, the Irish economy is expected to grow by just 2 per cent in 2023, down from an expected 4.6 per cent this year and more than 13 per cent last year.

The lower forecasts reflect the expected impact of rising costs on consumers and busi-

nesses here.

"Over the coming months, the bite of energy, interest rate and other costs will begin to be felt by households, despite the supportive stance of Government in the recent budget," Ibec said.

It noted that Irish households use about 48 per cent of their annual heating in the first quarter of any given year as temperatures drop. As a result, seasonality in spending decisions may be pronounced next year, Ibec said.

On the upside, the lobby group said the strength of the public finances meant Ireland

was in a unique position in Europe with tax revenues growing rapidly, allowing the Government to engage in both higher spending and to run a significant budget surplus. Ibec's report came as the latest exchequer figures from the Department of Finance show the Government collected almost €64 billion in taxes so far this year, 25 per cent up on last year.

In its report, Ibec said that, as a small open economy, Ireland was exposed to the prospect of a global economic slowdown and recessions in some major trading partners.

"The prospect of an economic reset through accelerated monetary tightening by the world's major central banks, is one which will lead to some further instability in financial markets globally," it said.

The markets are expecting the European Central Bank to raise the interest rate to at least 3 per cent from the current rate of 2 per cent by the middle of 2023.

Ibec said this monetary nor-

malisation will drive reallocation of capital away from the phenomenon of "reach for yield" – whereby investors bought riskier assets to achieve higher yields.

Risky assets It noted that there had already been volatility around risk assets such as cryptocurrencies and a move toward equities with earnings.

Ibec's head of policy and chief economist Gerard Brady said: "While Ireland's economic momentum in the first half of 2022 was extraordinarily strong, there are now several leading indicators that suggest the volume of activity in the consumer economy and labour market may be beginning to slow."

Ibec said this monetary nor-

DNA tool could help preserve fish stocks

Innovation, page 16

How Musk sealed the Twitter deal

Technology, page 17

Net Results

Karlin Lillington

Remembering Ireland's forgotten computer pioneer

In mid-October, a small crowd – including me – stood in the middle of a narrow road in Drumcondra, huddling into our coats against sporadic gusts of wind as we gazed at a neat red-brick terraced house.

To the right of the front window at 30 Dargle Road, an inconspicuous small curtain was mounted on the exterior wall. With a few gentle tugs, Trinity College Dublin provost Prof Linda Doyle pulled it back to reveal a new blue plaque commemorating the enigmatic Irish inventor and pioneering computer scientist, Percy Ludgegate.

A man far ahead of his time who remains mostly unknown in ours.

Inside that house, in the early years of the last century, Ludgegate – only in his 20s – worked out the astonishing conceptual design of the world's second computer. The first is now widely recognised – that's the "analytical engine" developed by the English mathematician Charles Babbage from the 1830s onwards, ascribed by his mathematician friend, Ada Lovelace.

Though Babbage never managed to build the machine himself, a working model was eventually created at London's Science Museum and another sits in the Computer History Museum in Silicon Valley. I've visited both and seen and heard them in operation – it's quite a dramatic process involving an enormous, clattery construction of shining gears and cogs and moving parts.

Early historical accounts all presumed that over a hundred years, and two world wars, had passed before anyone anywhere successfully, knowingly or otherwise, followed in Babbage's footsteps.

Prof Brian Randell of the school of computing at Newcastle University, told us at the plaque launch: "But now we know otherwise."

As Randell explained, Ludgegate came up with a wholly original design using shuttles containing 21 sliding rods, controlled by a perforated paper tape. Unlike Babbage's machine, Ludgegate's could perform straightforward multiplication and division. It also had some early features of modern computers, such as the ability to run subroutines.

It is thanks to a small group of dedicated computer scientists that Ludgegate's achievement and importance are now historically acknowledged, even if he himself remains under-recognised in the public mind. In 1971, Randell wrote an early paper on him after reading Ludgegate's sole paper on his computer, published in the 1909 Scientific Proceedings of the Royal Dublin Society.

Ludgegate resurges Spearheading much of the recent work on Ludgegate is Trinity computer scientist Dr Brian Goghlan, who has worked hard to give Ludgegate his rightful place in computing history. Along with Randell, he has co-edited a new book that gathers together a wide range of papers on Ludgegate, and he maintains a collection of online Ludgegate resources at TCD. He also organised the plaque's launch but then, unfortunately, contracted Covid and was unable to attend.

Among those there on the day was Ludgegate's American descendant, his grand-niece Trish Gonzalez. Represent-

tives from the Royal Irish Academy, the Royal Dublin Society, Engineers Ireland, the Irish Academy of Engineering, the Irish Computer Society, and the Irish Mathematical Society came to pay respects at the house on Dargle Road, too.

Also present were the first and the most recent recipients of TCD's Ludgegate Prize, given every year to recognise the finest student thesis from that year's graduating class in computer science. The first recipient, in 1991, was Dr Steven Collins, who went on to co-found the successful gaming software company Havok.

Plaque unveiled TCD student Mohamed Suliman, a Dubliner of Sudanese heritage, is the most recent (2021) recipient, for his thesis *Timed Probabilities*, which is "all about temporal knowledge representation and reasoning," he told me. I enjoyed chatting with him at the reception after the plaque unveiling and we connected again by email a few days later.

Winning the Ludgegate Prize is a nice surprise, he says, because "the subject I chose was not an orthodox thesis."

Trinity College Dublin provost Prof Linda Doyle pulled back a small curtain to reveal a new blue plaque commemorating the house

topic for computer science [I had brought it up myself] and it took some time to find a supervisor who would take it on, so it was nice to be recognised for the work."

He also enjoyed learning about Ludgegate. "The prize's namesake allowed for a nice lesson in Irish and computing history," he says. "I like to think such an unconventional innovator as Ludgegate would be quite pleased that another unorthodox thinker received the prize bearing his name."

Suliman is now in the second year of a PhD. He's about to submit a paper that shows it is possible to reconstruct user data from the AI models that predict what word a person is about to type next – "those three word suggestions that appear above the keyboard on a smartphone."

Imagine what Ludgegate might have thought about much of the work of these days owning a pocket computer in the form of a smartphone, taking up less space than a couple of his sliding rods.

And imagine what more he might have done, had he lived longer. He died from pneumonia at the young age of 39, just over 100 years ago in October 1922.

Sixth interest rate hike in row from Fed

The Federal Reserve stepped up its fight against a 40-year high in US inflation yesterday, announcing its fourth consecutive three-quarters of a percentage point hike in interest rates.

With the cost-of-living crisis battering consumers and Joe Biden's political fortunes, Fed officials have now imposed six rate rises in a row, the sharpest increases in interest rates since the 1980s, when inflation touched 14 per cent and rates rose to nearly 20 per cent.

The Fed's latest increase brings the federal funds rate, which acts as a benchmark for everything including business loans, credit card and mortgage rates – to between 3.75 per cent and 4 per cent.

On the upside, the lobby group said the strength of the public finances meant Ireland

to reach the levels seen in the 1980s. Chairman Jerome Powell has indicated that the Fed expects prices will reach 4.4 per cent by the end of the year and start coming down until 2024.

Smaller rate rises Speaking at the Federal Open Market Committee, Mr Powell said that when it comes to moving to smaller rate rises from the three-quarter point moves that have defined recent rate hikes, "that time is coming and it may come as soon as the December meeting," he said "no decision has been made" yet on what action to take at the next FOMC gathering.

Fed officials had expected inflation to decline this year, but it remains high. In September, the cost of goods and services were 8.2 per cent higher compared with a year ago, well above the Fed's target inflation rate of 2 per cent.

The Fed's move comes as governments around the world are struggling with a surging cost-of-living crisis. Today, the Bank of England is expected to raise its base rate by as much as one percentage point to 3.25 per cent – Guardian

Toy giant Hasbro sells Ireland's Boulder Media

GORDON DEAGAN

Toy giant Hasbro has sold one of Ireland's largest animation studios, Boulder Media, to Australian-based Princess Pictures.

The Dublin-based Boulder Media's animation portfolio includes work on Hasbro's Transformers and My Little Pony franchises along with TV shows such as Go Jetters and Danger Mouse. New accounts for the

multi-award-winning Boulder Media Ltd show it declared three dividends last month with a cumulative total of €8.7 million before the sale of Princess Pictures closed on October 7th. The financial terms of the sale have not been disclosed.

Unique opportunities On the deal, Boulder Media's general manager Jenni MacNamee told *Irish Times* entertainment industry publication

Deadline: "This synergistic relationship opens up unique opportunities for our future slate and enables us to amplify our creative offering in the market."

She added: "It's an exciting step forward in building the Boulder brand, while setting us up for future success."

Managing director of Princess Pictures Emma Fitzsimon told *Deadline*: "Boulder Media has an established reputation in kids' animation pro-

duction and we're going to add a new focus prime-time adult comedy production."

Hasbro purchased Boulder Media in 2016. The new accounts show the company last year recorded a 22 per cent drop in pre-tax profit to €8m. This followed revenues decreasing 38 per cent from €25.18 million to €17.54 million. The numbers employed by the business last year fell from 326 to 158.

Figure 1: Article by Dr. Karlin Lillington in the Irish Times issue of 3-Nov-2022.

Net Results

Karlin Lillington



Remembering Ireland's forgotten computer pioneer

In mid-October, a small crowd – including me – stood in the middle of a narrow road in Drumcondra, huddling into our coats against sporadic gusts of wind as we gazed at a neat red-brick terraced house.

To the right of the front window at 30 Dargle Road, an incongruous small curtain was mounted on the exterior wall. With a few gentle tugs, Trinity College Dublin provost Prof Linda Doyle pulled it back to reveal a new blue plaque commemorating the house that once belonged to the enigmatic Irish inventor and pioneering computer scientist, Percy Ludgate, a man far ahead of his time who remains mostly unknown in ours.

Inside that house, in the early years of the last century, Ludgate – only in his 20s – worked out the astonishing conceptual design of the world's second computer. The first is now widely recognised – that's the "analytical engine" developed by the English mathematician Charles Babbage from the 1830s onwards, assisted by his mathematician friend, Ada Lovelace.

Though Babbage never managed to build the machine himself, a working model was eventually created at London's Science Museum and another sits in the Computer History Museum in Silicon Valley. I've visited both and seen and heard them in operation – it's quite a dramatic process involving an enormous, clattery construction of shining gears and cogs and moving parts.

"Early historical accounts all presumed that over a hundred years, and two world

tives from the Royal Irish Academy, the Royal Dublin Society, Engineers Ireland, the Irish Academy of Engineering, the Irish Computer Society, and the Irish Mathematical Society came to pay respects at the house on Dargle Road, too.

Also present were the first and the most recent recipients of TCD's Ludgate Prize, given every year to recognise the finest student thesis from that year's graduating class in computer science. The first recipient, in 1991, was Dr Steven Collins, who went on to co-found the successful gaming software company Havok.

Plaque unveiled
TCD student Mohamed Suliman, a Dubliner of Sudanese heritage, is the most recent (2021) recipient, for his thesis *Timeline Probabilities*, which is "all about temporal knowledge representation and reasoning", he told me. I enjoyed chatting with him at the reception after the plaque unveiling and we connected again by email a few days later.

Winning the Ludgate Prize was a nice surprise, he says, because "the subject I chose was not an orthodox thesis



mathematical theme, and Lovelace.

Though Babbage never managed to build the machine himself, a working model was eventually created at London's Science Museum and another sits in the Computer History Museum in Silicon Valley. I've visited both and seen and heard them in operation – it's quite a dramatic process involving an enormous, clattery construction of shining gears and cogs and moving parts.

"Early historical accounts all presumed that over a hundred years, and two world wars, had passed before anyone anywhere successfully, knowingly or otherwise, followed in Babbage's footsteps," Prof Brian Randell of the school of computing at Newcastle University, told us at the plaque launch. "But now we know otherwise."

As Randell explained, Ludgate came up with a wholly original design using shuttles containing 21 sliding rods, controlled by a perforated paper tape. Unlike Babbage's machine, Ludgate's could perform straightforward multiplication and division. It also had some early features of modern computers, such as the ability to run subroutines.

It is thanks to a small group of dedicated computer scientists that Ludgate's achievement and importance are now historically acknowledged, even if he himself remains under-recognised in the public mind. In 1971, Randell wrote an early paper on him after reading Ludgate's sole paper on his computer, published in the 1909 *Scientific Proceedings* of the Royal Dublin Society.

Ludgate resources

Spearheading much of the recent work on Ludgate is Trinity computer scientist Dr Brian Coghlan, who has worked hard to give Ludgate his rightful place in computing history. Along with Randell, he has co-edited a new book that gathers together a wide range of papers on Ludgate, and he maintains a collection of online Ludgate resources at TCD. He also organised the plaque's launch but then, unfortunately, contracted Covid and was unable to attend.

Among those there on the day was Ludgate's American descendant, his grand-niece Trish Gonzalez. Representa-

later. Winning the Ludgate Prize was a nice surprise, he says, because "the subject I chose was not an orthodox thesis



66

Trinity College Dublin provost Prof Linda Doyle pulled back a small curtain to reveal a new blue plaque commemorating the house

topic for computer science [I had brought it up myself] and it took some time to find a supervisor who would take it on, so it was nice to be recognised for the work".

He also enjoyed learning about Ludgate. "The prize's namesake allowed for a nice lesson in Irish and computing history," he says. I'd like to think such an unconventional innovator as Ludgate would be quite pleased that another unorthodox thinker received the prize bearing his name.

Suliman is now in the second year of a PhD. He's about to submit a paper that shows it is possible to reconstruct user data from the AI models that predict what word a person is about to type next – "those three-word suggestions that appear above the keyboard on a smartphone".

Imagine what Ludgate might have thought about much of the world these days owning a pocket computer in the form of a smartphone, taking up less space than a couple of his sliding rods.

And imagine what more he might have done, had he lived longer. He died from pneumonia at the young age of 39, just over 100 years ago in October 1922.

Figure 2: Closeups of the article by Dr. Karlin Lillington in the Irish Times issue of 3-Nov-2022.