ENTERPRISE IRELAND

EXPORT MARKET WATCH

Software Sector

Investec

#GlobalAmbition

The Enterprise Ireland/Investec Export Market Watch Survey Software Sector

33% of panellists have taken steps to prepare for **Brexit**

The **UK is still seen as one of the most attractive markets** alongside the **US** and **Eurozone**

79% of panellists say that the **availability of capital is good or satisfactory**

20% view the availability of labour to be good or very good

Understanding the market and finance are seen as the main barriers to overseas expansion

A majority of software firms see **AI as the technology disruptor** that will have the most significant impact on their business

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Introduction and key findings

In the second *Export Market Watch* publication from Enterprise Ireland, in conjunction with Investec, we examine the main issues that are affecting the software industry, along with providing a macroeconomic overview of Ireland's main export markets and developments in the FX and commodities markets.

We have conducted a survey of many of Ireland's leading software firms. This suggests that the geographic reach of most companies is likely to remain focused on familiar territories, the UK, Eurozone and North America, even though a third of firms have consciously taken steps to prepare for Brexit. However, many firms are happy to look further afield, with Asia-Pacific, Latin America, Africa and the Middle East all seen as growth targets by a number of panellists.

While capital and labour are among the most important issues for Irish software companies, we are pleased to see that approximately three-quarters of panellists see their availability as satisfactory, good or very good.

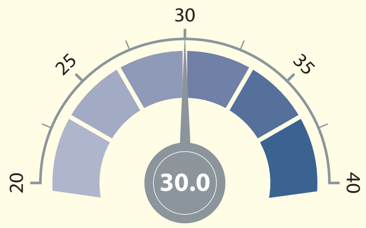
We also sought to glean panellists' thoughts on their prospects for international expansion. Customer identification, wider market insights and capital were cited as the main barriers to overseas growth. To this end, the supportive funding environment is welcome, while firms struggling to identify the best route to market should embrace the wide range of supports available from organisations such as Enterprise Ireland along with tapping into the wide diaspora of Irish firms that have successfully transitioned into overseas territories.

While currency is not seen as a major issue by the overall sector, this is likely explained by Ireland's membership of the Eurozone. Some 80% of panellists reported a sterling exposure and 70% have exposure to the US dollar, so the recent volatility in the currency markets (a point noted in the previous issue of *Export Market Watch*) should serve as a call to action for firms to review their exposures and consider strategies to protect their revenues and margins from any sudden exchange rate moves.

Turning from the survey to the macroeconomic backdrop, this remains very supportive, with global growth expected to quicken to a seven year high in 2018. There are a number of potential challenges that have to be carefully navigated, however, such as the fall-out from policy normalisation moves by the world's main central banks. However, the software sector should handle any pressures better than most sectors, given that a number of segments are benefiting from structural growth trends that are autonomous of the broader economic cycle.

Irish Merchandise Exports

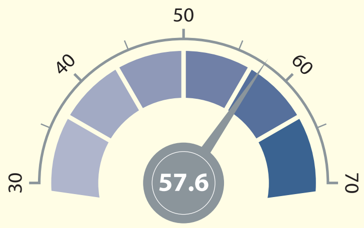
Q3 2017



Value: € Billions

Investec Manufacturing PMI New Export Orders

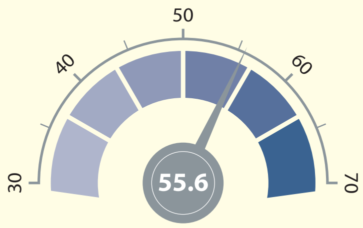
Q4 2017



Index Level

Investec Services PMI New Export Orders

Q4 2017



Index Level

Recent export performance and FX perspectives

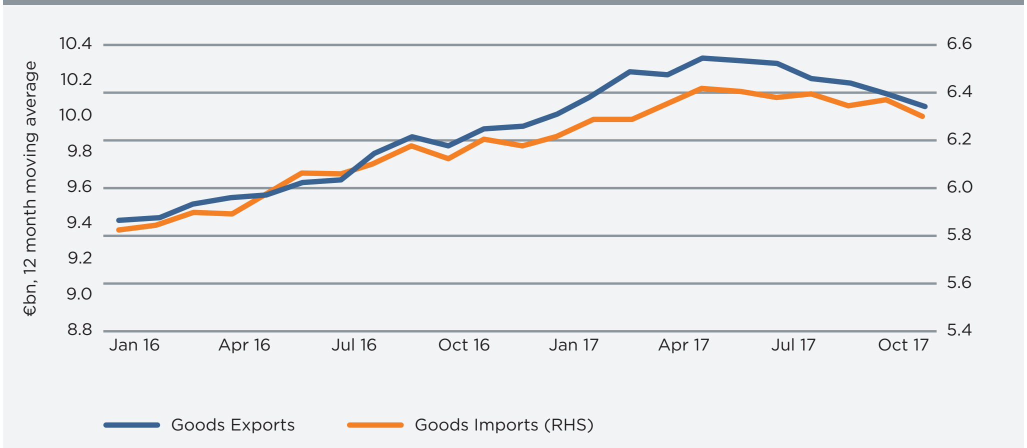
KEY POINTS

- **Trade surplus of €38.4bn** recorded in first 10 months of 2017
- The **euro, sterling** and **US dollar** dominate Irish software firms' FX needs
- However, 10% of companies have **exposures to currencies** beyond these rules

Growth in Irish exports moderated in the second half of 2017 following a strong start to the year. Nominal merchandise (goods) exports increased by 2% y/y in the period to end-October, according to the CSO, and eight of the nine major commodity groups posted annual growth in nominal exports in the period. Growth in the trade surplus also moderated over the course of the year with a surplus of €38.4bn recorded in the first ten months of 2017.

Elsewhere, the export component of the Investec Services PMI report for Ireland has been above 50 for 13 successive months now, suggesting that the strong momentum in this area should continue, helped by the strengthening international economic backdrop.

Merchandise Trade



Services PMI New Export Orders

Outlook for FX markets and monetary policy

KEY POINTS

- Focus in FX Markets has turned to the pace which **central banks will tighten policy**
- There is **good momentum** behind all of Ireland's key trading partners
- Caution is needed regarding likely volatility in the currency markets arising from **Central Bank policy changes**

With prospects for the global economy improving, attention has gradually turned to the pace at which the main central banks will tighten policy. The Bank of England recently increased rates for the first time in 10 years, while the Fed hiked rates again in December. While an imminent rate increase from the ECB is not expected, the time for such a move appears to be gradually drawing closer.

Alongside interest rate normalisation, central bank balance sheet decisions also loom large. The Fed has already laid out its plans to accelerate quantitative easing (QE) redemptions. The Bank of Japan may also begin to wind down its QE purchases either later this year or through 2019. If it does, then alongside the Fed's moves, global QE purchases would be negative from the start of next year. The market's reaction to this will be a key focus in the coming months. Any material hit to sentiment could force some rethinking of broader normalisation plans.

Eurozone/EUR: The ECB announced a 9 month extension of its asset purchase programme at its policy meeting in late October, albeit at a reduced pace of €30bn per month from January (a "recalibration" in the ECB's lexicon). The ECB appears to be balancing the need for a reduction in monetary policy support, given economic growth accelerated more than expected in the second half of 2017, with a reluctance to make any announcements that could prompt a further strengthening in the Euro, thereby potentially hurting the recovery momentum. Investec forecasts that the ECB will not raise key rates until well into 2019.

UK/GBP: The Bank of England (BoE) announced its first hike in UK interest rates for over 10 years in November, with a 25bp rise in the bank rate to 0.5%. The Inflation Report projections that accompanied the announcement suggested a slightly steeper path for rates than the market had been pricing in ahead of the meeting. Investec expects to see one 25bp hike this year (in Q2) and a further move over 2019, but the fiscal background could encourage a slightly faster pace of tightening, especially if the BoE is more relaxed over downside risks stemming from Brexit.

Euro-Sterling Rate

Euro-Dollar Rate

Investec Currency Forecast

		2018				2019			
		30/01/18	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Euro	€:$	1.240	1.2	1.21	1.22	1.24	1.25	1.25	1.26
Sterling	€:£	0.877	0.87	0.87	0.87	0.88	0.89	0.89	0.89
	£:€	1.141	1.15	1.15	1.15	1.14	1.12	1.12	1.12

US/USD: Following its decision to raise rates by 25bps in December, the “dot plot” of projections from the members of the Federal Open Market Committee (FOMC) foresees three further rate increases over the course of 2018. The incoming Fed Chair Jerome Powell will preside over his first FOMC meeting in March when, in Investec’s view, the Fed will raise rates for the first time this year. Recent price developments may have an important influence on the committee’s thinking, given the recent rise in market-based measures of longer-term inflation expectations.

Oil: Brent Crude recently traded over 70$/b for the first time since mid-2015. Changes in oil demand tend to be correlated with changes in global economic activity and, therefore, it might be time to prepare for prices being sustained at higher levels than we have become accustomed to over the past three years. On the supply front, despite all the fanfare and coverage of OPEC’s joint cuts with non-OPEC nations that came into force at the start of 2017, the cuts were never as exciting as they seemed because they did not include Nigeria and Libya and, taken as whole, mainly reversed production increases in the months leading up to them. In addition, US shale production continues to increase and US production accounted for over half of the 1.7m barrels/day growth in supply as of November last year. Against this backdrop, it appears that increased demand is trumping increased supply.

The global outlook

KEY POINTS

- Financial instability has given way to a broad-based **strengthening in growth**
- Eurozone PMI surged to **12-year high**
- Global growth is set to accelerate to a **seven year high of nearly 4%** in 2018

The global economic backdrop has improved markedly over the past 18 months, with stalling growth and lingering concerns over financial instability giving way to a broad-based strengthening in growth. The IMF estimates that, on a purchasing power parity basis, roughly three-quarters of the global economy has seen growth accelerate this year. Investec forecasts world GDP growth of 3.6% in 2017, increasing to 3.9% in 2018. Assuming our 2018 growth forecast is met, this will represent the fastest pace of expansion for the world economy for seven years.

The Eurozone economy continues to strengthen. In January, the Euro area composite PMI surged to an almost 12-year high of 58.6, indicating a strong pace of activity at the start of 2018. Investec recently upgraded its growth forecasts for the region to 2.3% in 2017 and 2.1% in 2018.

In the UK, GDP growth of 0.5% q/q was recorded in Q4 2017 with the latest figures implying a full-year growth rate of 1.8%. Investec forecasts growth of a similar level in 2018 (1.7%). A key risk though is that higher interest rates weigh on household budgets where pay growth is not keeping pace with inflation despite unemployment falling to a 42-year low of 4.3%.

The US economy grew at a 2.6% annualised pace in Q4 and the momentum remains solid. As is the case in the UK, unemployment has declined to the lowest levels in recent history; at 4.1%, it is at a 16-year low. Investec sees growth of 2.2% in 2017 increasing to 2.6% in 2018, but the signs are that the risks to these forecasts lie to the upside.

Software Sector Outlook

KEY POINTS

Nearly **80%** of software firms believe that the **availability of capital is satisfactory to very good**

Wages across the IT sector have climbed by **11% since the recession**

This is nearly **3x the 4% rise in economy-wide earnings** over the same timeframe

The outlook for the sector is very positive. While the global economic outlook is supportive, it is important to note that many of Ireland's leading firms are tapping into structural growth opportunities that contain real promise irrespective of where we are in the economic cycle. An example of this is fintech, where opportunities are heavily influenced by regulatory changes. The emergence of disruptive technologies is another example of this phenomenon.

The key issues impacting the software sector are capital; scale; and the availability and cost of labour.

On the capital side, the backdrop is positive, with strong supports from the State and also the private sector. Data compiled by The Irish Venture Capital Association shows that total funds raised by Irish firms rose 293% between 2007 and 2016 (to €888m), with this capital spread across seed / start-up, early stage and growth / expansion.

In terms of the labour market, the availability of talent and wage inflation are two main areas of focus at this time. On the latter, CSO data shows that since Q411 (when total economy-wide earnings troughed during the recent downturn), average wages across the software sector have climbed by 11.4%, far outstripping the 4.3% growth across the whole labour market over the same period. The ability to source talent depends on the jurisdiction. Domestically, Irish graduates are well regarded, but there are shortages, particularly in areas such as coding. Ireland is rightly seen as being 'open for business' in terms of welcoming skilled labour from overseas to take up roles in the software industry here, but for Irish firms looking to expand abroad, some software firms report issues in terms of securing visas for employees, which is a challenge given that establishing an on-the-ground presence is an important driver of growth in many international markets.

Irish software companies can leverage a range of supports, from Enterprise Ireland's Leadership 4 Growth programme through to the NDRC and Guinness Enterprise Centre, as they scale their business to compete internationally. Furthermore, given that Irish firms have become prominent in a number of clusters (e.g. payments, regtech, edtech) this has created a number of hubs in the Irish software ecosystem that make it easier to exchange knowledge and attract talent.

Key results from the survey

KEY POINTS

Nearly one-third of Irish software companies say that they have taken steps to **prepare for Brexit**

The **UK** is still seen as offering the **best near-to-mid-term opportunities for Irish firms,** followed by the US and Eurozone

Finance; Market Research & Intelligence; and Human Resources are seen by Irish firms as the **key resources to support overseas growth**

In the preparation of this report we surveyed multiple Enterprise Ireland client companies in the software space. The firms were a mix of firms from the SaaS and enterprise segments with many market verticals represented (healthcare, IT, logistics, education, financial services, logistics and retail were the main markets in which the respondents are active). The responses of Irish software firms to our latest survey make for very interesting reading.

In terms of existing export relationships, it is no surprise to see that the UK, North America and Eurozone are the main destinations. However, what is surprising is that panellists feel that those three markets will continue to offer the greatest opportunities into the medium term, with only a small minority suggesting that other markets may challenge the dominance of the incumbent 'big three'.

The survey does suggest that there will be some movement in focus across those large markets, with just under a third of respondents saying that they have taken steps to prepare their businesses for the impacts of the UK leaving the European Union. For the most part this involves targeting sales from other jurisdictions, but some panellists said that they have shifted more of their cost base to the UK in an effort to align revenues and expenses and therefore reduce foreign exchange risks.

Another interesting finding of the survey is that only one in five firms believe that the availability of labour is either 'good' or 'very good', with a quarter of panellists describing it as 'poor' or 'very poor'. Capital is more plentiful, with two-fifths of respondents saying its availability is either 'good' or 'very good' and the same proportion describing it as 'satisfactory'.

The favourable funding conditions are a welcome phenomenon, given that panellists identify capital as one of the three main challenges to overseas growth. The other key issues here are market knowledge and customer identification / targeting, which underscores the usefulness of on-the-ground supports from the likes of Enterprise Ireland for Irish firms expanding overseas.

As an aside, we note that firms identified tariffs and FX as less significant barriers to overseas expansion. The latter may be due to Ireland's membership of the Eurozone, with 97% of respondents saying that they currently have revenues denominated in the single currency. On the tariffs point, given the evolving policy mix in a number of trading partners, more vigilance or monitoring may be required here to reduce risks to business models.

Looking ahead, Irish firms identify artificial intelligence, cybersecurity, IoT, AR/VR and blockchain as the main sources of disruption in the coming years.

Enterprise Ireland Software Sector Adviser Views

IRELAND: *"For Irish software exporters, the economic outlook across the international markets is very positive. This is particularly the case in the important US market, the destination for 42% of exports, where conditions are buoyant. Growth is evident across all verticals here, with the only constraint being a lack of human resources.*

The overriding trend in the sector is that technology is becoming more ubiquitous, with crossover and cross-pollination evident across all verticals. We are seeing companies becoming increasingly receptive to embracing technological change, which is a very welcome development.

Given this backdrop, it is unsurprising that most Enterprise Ireland client companies are in a growth phase. One change that we are seeing is that companies are looking to become more geographically diversified due to issues such as Brexit and FX volatility.

On Brexit, apart from currency impacts the other key consequences include a lengthening of time to close deals with public sector bodies and a negative impact on sentiment due to elevated uncertainty. Some client firms are looking at relocating parts of their cost base to the UK to secure natural hedging benefits – this phenomenon is mainly in areas such as sales, marketing and distribution as opposed to intellectual property. We also note rising interest from EEA and non-EEA citizens in the UK to move to Ireland to take up positions in the software industry here.

Another international market that companies are increasingly cognisant of is Asia. There are clearly huge opportunities across the Asian markets, but the large quantum of VC funding available to software companies and increasing innovation evident across many parts of the continent suggests increased competition for Irish firms.

While we are positive on the outlook across the technology sector generally, there are a number of particularly attractive segments within it that Irish companies may look to target. Digital healthcare is becoming one of the most important areas, including applications involving the use of blockchain. Another area where Ireland has significant capabilities is cybersecurity, with the Middle East a key source of recent demand.

In terms of advice for Irish exporters, we would counsel them to be very clear on their strategy and organise all of their firm's units to support that. Understanding your USP and what vertical(s) it best ties in with is key to success."

John MacNamara, Manager Digital Technologies, Enterprise Ireland.

EUROZONE: *"The macroeconomic backdrop in Spain is very good, with growth running ahead of the Eurozone average. While there are challenges such as structurally high unemployment, there are also bright spots such as the fact that the country has become home to a growing number of multinationals, while the tourism sector is performing strongly. A thriving start-up ecosystem has seen many disruptive technologies developed in Spain.*

For Irish companies targeting Spain for growth opportunities, preparation is a must. The scale of the market can be daunting for some firms, especially those targeting the largest 'Tier One' corporations (many of whom have expanded from Spain to other jurisdictions, especially Latin America). Understanding your firm's value proposition and route to market are key determinants of success. Language skills and establishing a physical presence in Spain are helpful, as is understanding the local business culture. Patience and repeated follow-up is needed to cultivate relationships before commercial opportunities can be brought across the line. Brexit has not had a direct impact here, but there has been an indirect impact in that Irish companies are more willing to diversify into markets such as Spain than they had been prior to the referendum.

The most attractive opportunities within Spain are in areas like internet of things (IoT), smart cities, cyber security, fintech / blockchain and travel software."

Raul Marigorta, Senior Market Adviser – Southern Europe, Middle East and Africa, Enterprise Ireland.

US: *"The general outlook for the US remains very positive, notwithstanding some sources of uncertainty. Markets remain very supportive and there are huge opportunities for companies to expand at this time. Of course, the most innovative firms will always find room to grow regardless of economic conditions. Where we see the most innovation at this time is in areas such as voice, autonomous technologies, IOT/the connectivity of everything, AI, VR/AR and more broadly, technologies/applications that create revenue opportunities or reduce complexity and cost, and the rollout of 5G. The rapidly evolving frameworks behind 'smart city' initiatives are also creating exciting public/private partnership opportunities.*

In terms of Enterprise Ireland clients specifically, we are seeing a lot of interest from US investors to support their growth plans. This endorsement of their intellectual property is very welcome as a broader investor base usually brings 'knowledge and network' in addition to the financial investment. There is also recognition among the Irish start-up community that having a presence in the US from an early stage is key, although this does not necessarily mean that operations need to be mirrored on both sides of the Atlantic. Many Irish firms find it easier to source development talent locally than on the west coast of the US, for example.

The US is already the largest global market for Irish technology companies, so the UK's vote to leave the European Union is not having as tangential an impact on Irish firms' plans for the US market as it is for some other industry sectors. If anything, it may see some early stage companies develop "US first" market development plans as a preference to entering the UK market.

The core advice we would give to Enterprise Ireland client companies seeking to grow in the US is to always test what your value proposition is. Make sure that it's strong and differentiated. From there, the next priority is to understand the best route to market – be it direct, with an agent or partnership – whichever option is chosen must be value creating. While opportunities abound for Irish companies in the US, there are a number of particular areas of strength, including enterprise applications, disruptive healthcare technologies and data centres. Overall, the US is home to the largest start-up ecosystem in the world, and Enterprise Ireland's on-the-ground presence equips us with the ability to harness our network to support Irish companies so that they can be highly competitive from the earliest stages."

Paul Burfield, SVP West & Southern United States, Enterprise Ireland

AUSTRALIA: *"The Australian economy is projected to continue growing at a robust pace, extending the country's remarkable 26-year trend of uninterrupted growth. Strong commodity exports and high levels of private consumption and investment have made Australia one of the top performing industrialised economies. This is positive for Irish firms selling into this market, while Australia's strategic proximity to some of the world's fastest-growing economies offers Irish companies a beachhead from here to enter the wider Asia-Pacific region. In 2016 Enterprise Ireland-backed companies exported €256m to Australia, +14% y/y. These exports were generated by 300 Enterprise Ireland client companies, of which 178 have a physical presence here.*

Australia has a reputation for being an early adopter of new technology. Many of the country's largest banks, telcos and healthcare providers have sought out new innovations to sharpen their offers. Given the similar regulatory climate and business culture between the jurisdictions, it is no surprise that Irish firms have proven adept at turning emerging technologies into real world solutions for Australian clients, particularly in areas such as analytics, fintech, IoT, cyber security and digital health.

Brexit is an interesting catalyst for Irish firms in that it offers them the opportunity to explore new markets. Enterprise Ireland has seen an increase in new enquiries from Irish companies looking to diversify into the Australian market as a post-Brexit solution. Last year we organised the largest ever (55 companies) Irish trade mission to Australia and we have added extra resources to our Sydney office to support firms seeking to expand here.

With around a tenth of Australia's population coming from an Irish background, this country is home to one of the world's largest Irish diasporas. Many Irish firms have taken advantage of this network to help scale their business in Australia."

David Eccles, Senior Market Adviser – Australia / New Zealand, Enterprise Ireland

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Hype Cycle for Software as a Service

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European Union
European Structural and Investment Funds

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