IRELAND WILL GROW STRONGLY DESPITE BREXIT IN 2016; NEXT YEAR LESS CERTAIN

Government debt ratio below 94%; unemployment below 8%

July 2016

Index

SUMMARY

Ireland’s 100 year note issuance indicative of country’s turnaround

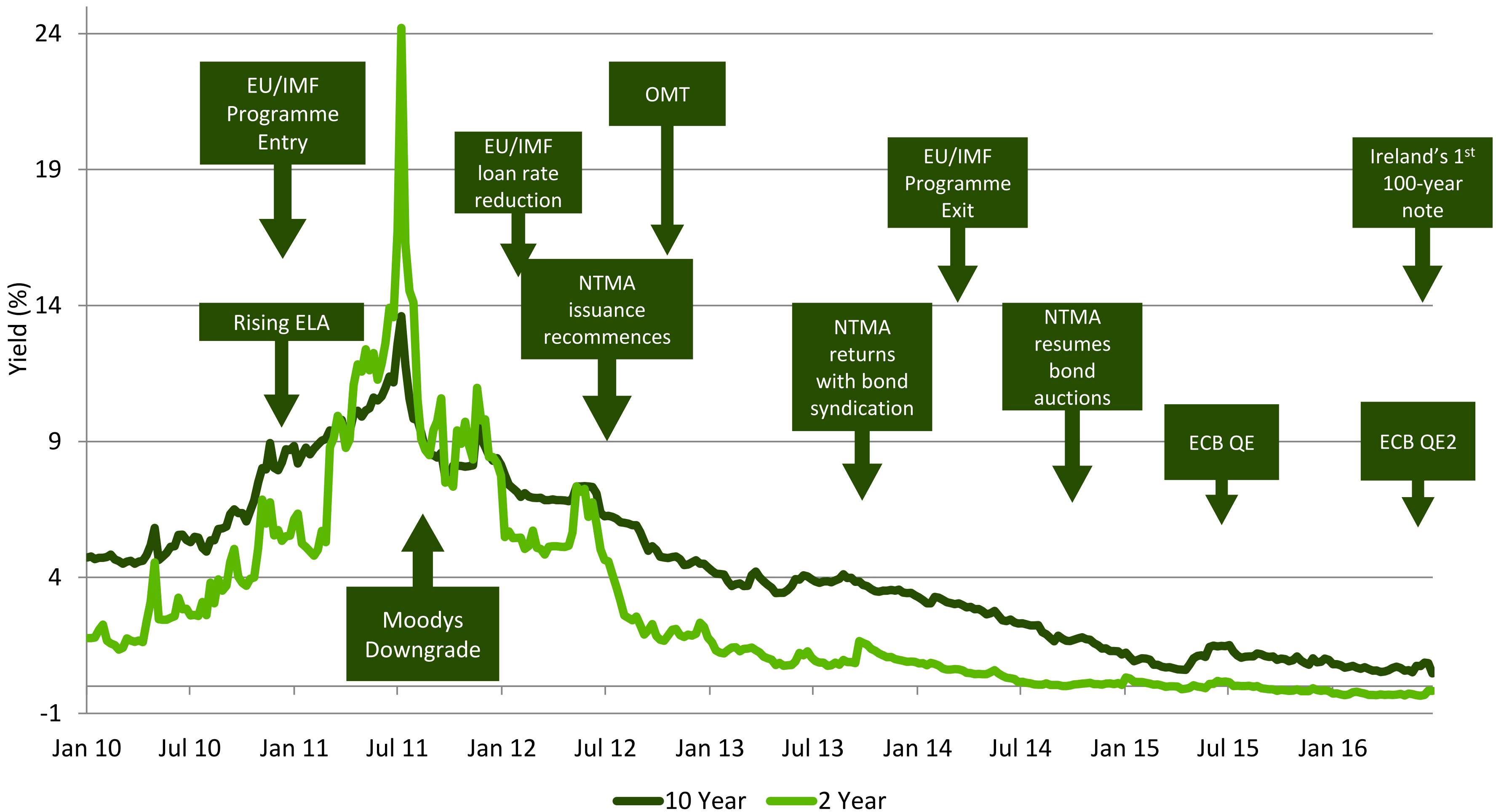
Ireland still growing fast, though Brexit will slow pace

- **Ireland is growing faster than every other euro area country; though Brexit will slow Irish growth in 2017**
  - Ireland's economy grew by 7.8% real and 13.5% nominal in 2015.
  - Consumer spending and investment have recovered. Car sales rose almost 25% in H1. There is pent up demand for investment e.g. housing supply undershoots demand
  - Unemployment is falling steadily: the rate was 7.8% in June 2016, down from peak of 15.1%
  - The UK may enter recession after its vote to leave the EU: if UK GDP drops by 1%, Ireland's may fall by 0.3-0.8%. The arithmetic "carryover" in 2016 helps, so 2017 sees the impact. The Minister for Finance has cut the Government's 2017 GDP forecast to 3.4% from 4.2%.
- **Government exited the EDP in 2015 and posted deficit of -2.3%**
  - The deficit was 2.3% in 2015, well within the EU-mandated target of 3%. For 2016, GGB is forecasted to fall to -0.9%. Ireland's primary surplus has improved by more than 10% of GDP since 2009, to stand at +1%. Fiscal data for 2016 is solid at the half-year stage.
  - Ireland has beaten its target for five straight years. At end-2010, the EC set Ireland a 2015 goal to exit the Excessive Deficit Procedure (EDP): no extensions were required.
- **Government debt 93.8% of GDP at end-2015, down from 120%**
  - The official figure of 93.8% was helped by the large excess of nominal growth over interest cost and second annual primary budget surplus in a row.

Funding is light in 2016; €5.6 of €6-10bn max complete

- **Funding Plan for 2016**
  - NTMA planned to issue €6-10 billion of long-term bonds over the course of 2016
  - Funding is light thanks to small GG deficit and October 2017 is the next bond redemption
- **€5.6bn issued so far this year**
  - On Jan 7th, the NTMA issued a €3bn 2026 bond via syndication – at a yield of 1.156%. A further €1.75bn of the bond was auctioned in Feb and April below 1%.
  - On May 12th, €750m of the 0.8% 2022 bond was auctioned at a yield of 0.157%
  - In March, the NTMA issued its first ever 100-year bond by private placement. The €100m note had a yield of 2.35%.
  - Our next scheduled bond auction is on September 8th, as per the NTMA's Q3 statement
  - The investor base continues to expand: In January international investors bought 88% of the bonds on offer, led by the UK (32%), the Nordics (13%) and Germany (11%).
  - Among investor categories, the bias of the deal was to real money: asset/fund managers took 37%, banks bought 22% and pension funds/ insurance companies hoovered 17%.
- **2015 was a strong year for the NTMA**
  - We raised €13bn from a stated range of €12-15bn at the outset of 2015.
  - The NTMA completed the early repayment of IMF loans in 2015. A total of €18bn worth of loans was refinanced: total interest cost savings could exceed €1.5bn (0.8% of GDP) over five years. The NTMA issued its first ever 30-year bond in February 2015.

Ireland's happy bond market story has lots of milestones



Source: Bloomberg (weekly data)

National Treasury Management Agency

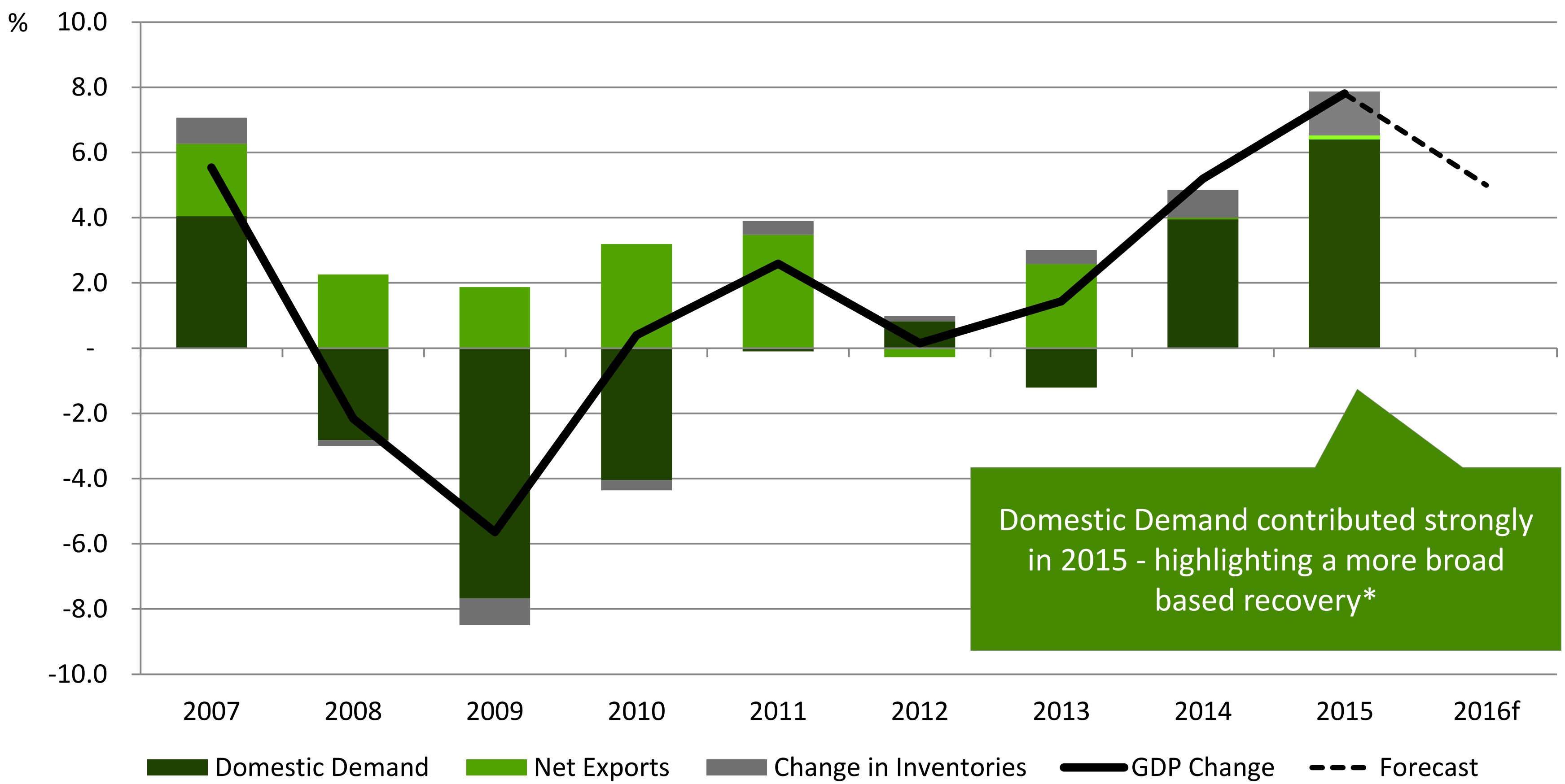
Ireland: A grade from all major credit rating agencies

Rating Agency	Long-term	Short-term	Outlook/Trend	Date of last change
Standard & Poor's	A+	A-1	Stable	June 2015
Fitch Ratings	A	F1	Stable	Feb. 2016
Moody's	A3	P-2	Positive	May 2016
DBRS	A(high)	R-1 (middle)	Stable	Mar. 2016
R&I	A-	a-1	Positive	Dec. 2015

SECTION 1: MACRO

Recovery has strengthened; Unemployment has dropped sharply from a peak of 15.1% of the labour force to 7.8% in June 2016

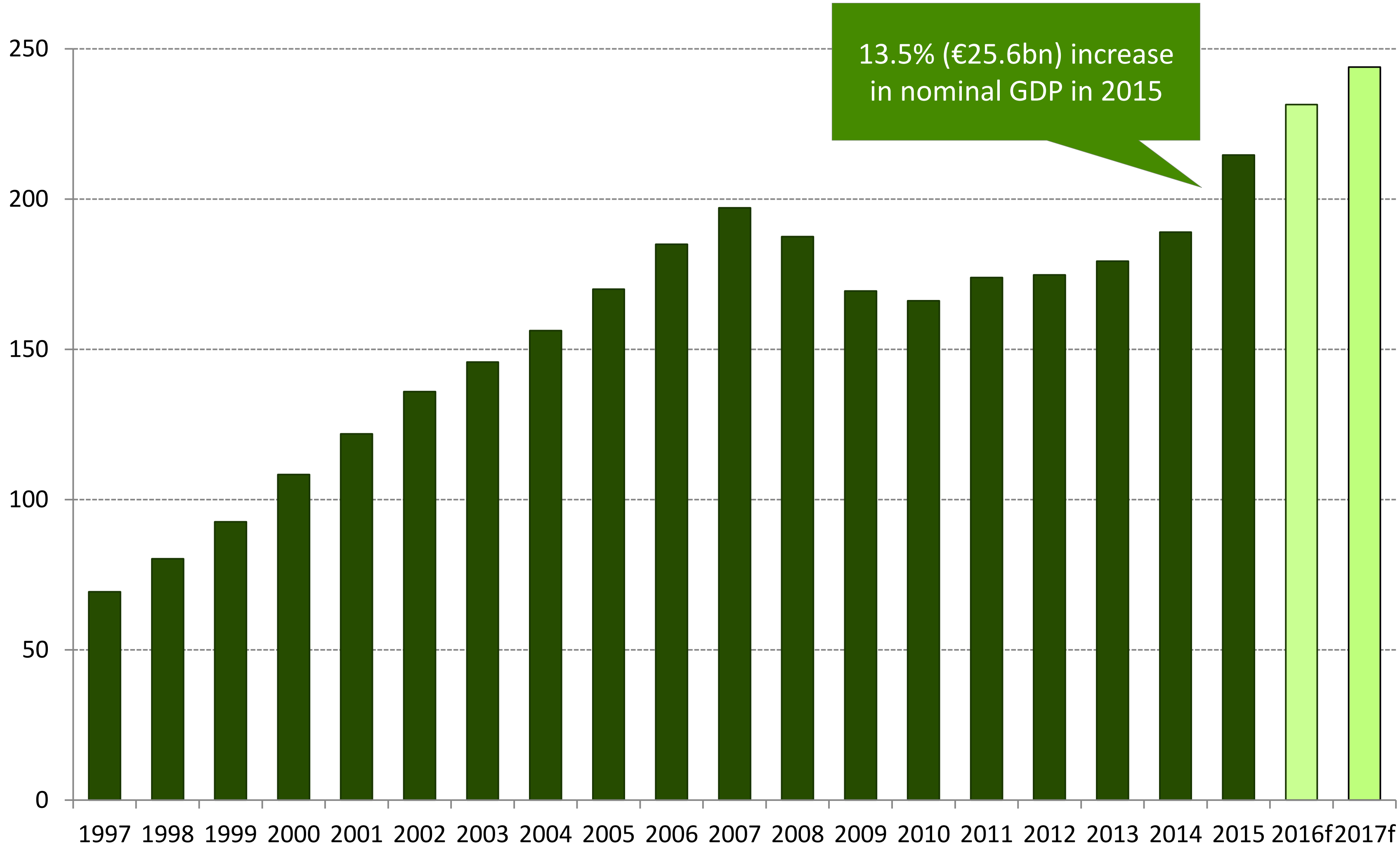
Personal consumption and investment drove GDP growth in real terms in 2015



Source: CSO; Department of Finance;

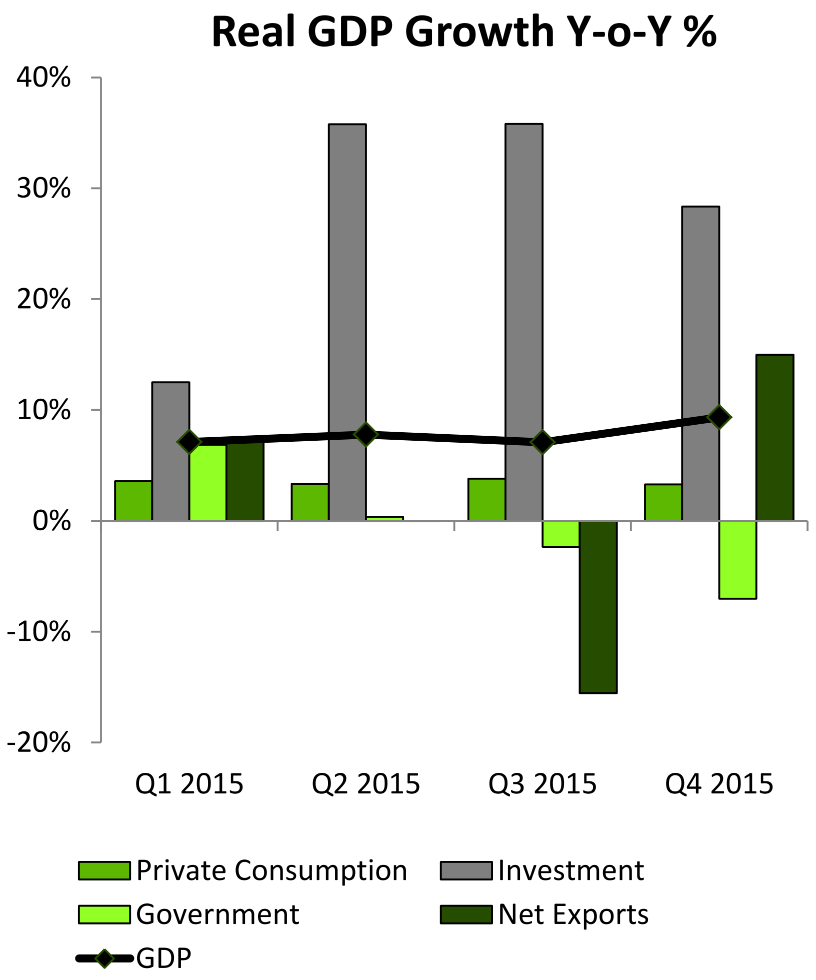
* Imports of intellectual property and aircraft trade exaggerate the contribution from domestic demand and underestimates the effect of Net Exports. Excluding these factors, the contribution of Investment is closer to 40% of GDP growth while Net Exports is closer to 30%. Please see slide 12 for more details.

Nominal GDP (€bn) exceeded pre-crisis peak in 2015



Source: CSO; Forecasts from Department of Finance

Growth strong and broad based in 2015



Source: CSO; NTMA workings

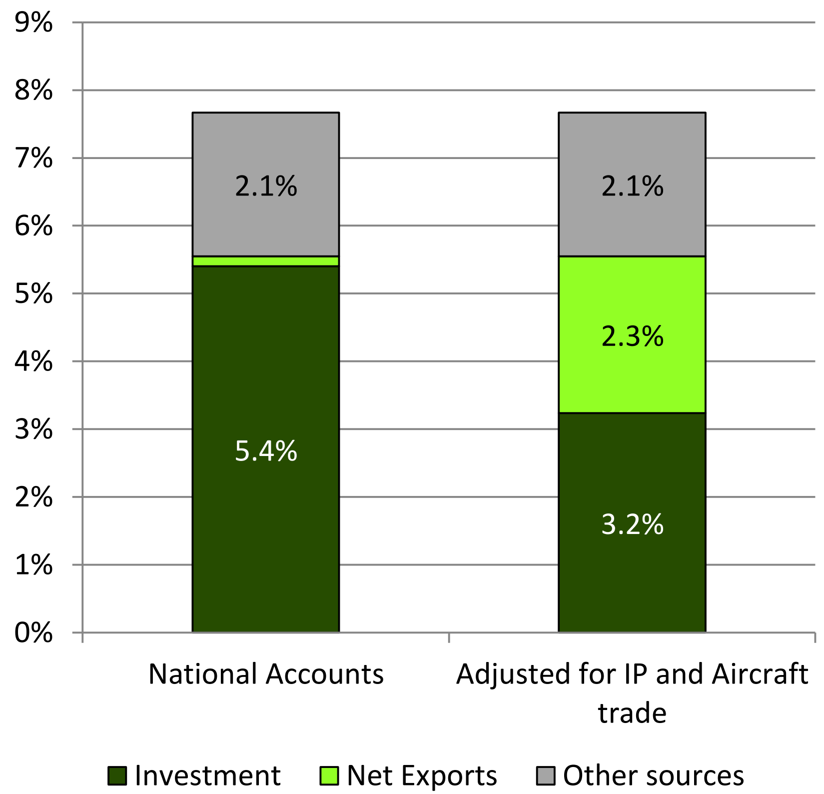
- 7.8% real GDP growth for 2015 – well above expectations.
- Q-Q real growth outturn for Q4 2015 was 2.7%, with Q3 2015 growth at 1.5%.
- Investment was nominally the driver in 2015 – although growth is overstated by the movement of intellectual property (IP) and aircraft trade into Ireland.
- Exports grew strongly in 2015 – particularly Q4 - but imports slightly outpaced exports for the year (due in part to IP and aircraft issues).
- Personal consumption is now a key driver of growth (3.5% for 2015).

Aircraft trade coupled with IP imports mean Irish National Accounts are distorted

Intellectual Property imports and aircraft trade by aircraft leasing companies* distort investment and net exports data in Ireland.

- Both lead to an increase in investment. At the same time there is an equal increase in imports. These impacts cancel each other at the aggregate level.
- **That is, these activities have no effect on GDP and GNP.**
- But they do overestimate investment and underestimate net exports in the national accounts.
- Excluding these two factors gives a better picture of the broad based GDP growth in 2015.

Investment is reduced & Net Exports increased in adjusted case for 2015

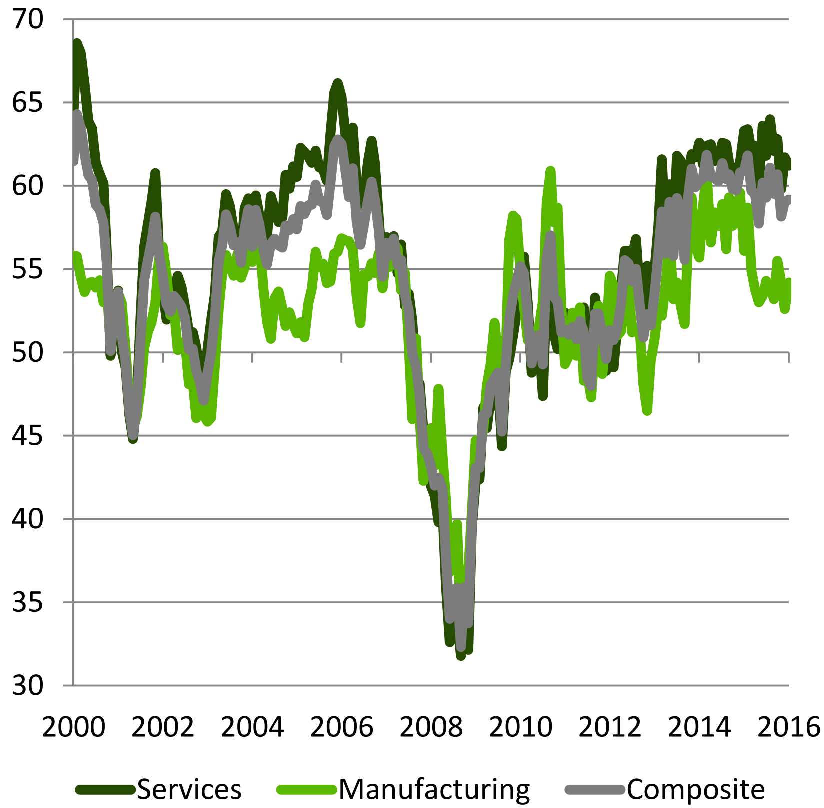


Source: CSO, NTMA analysis

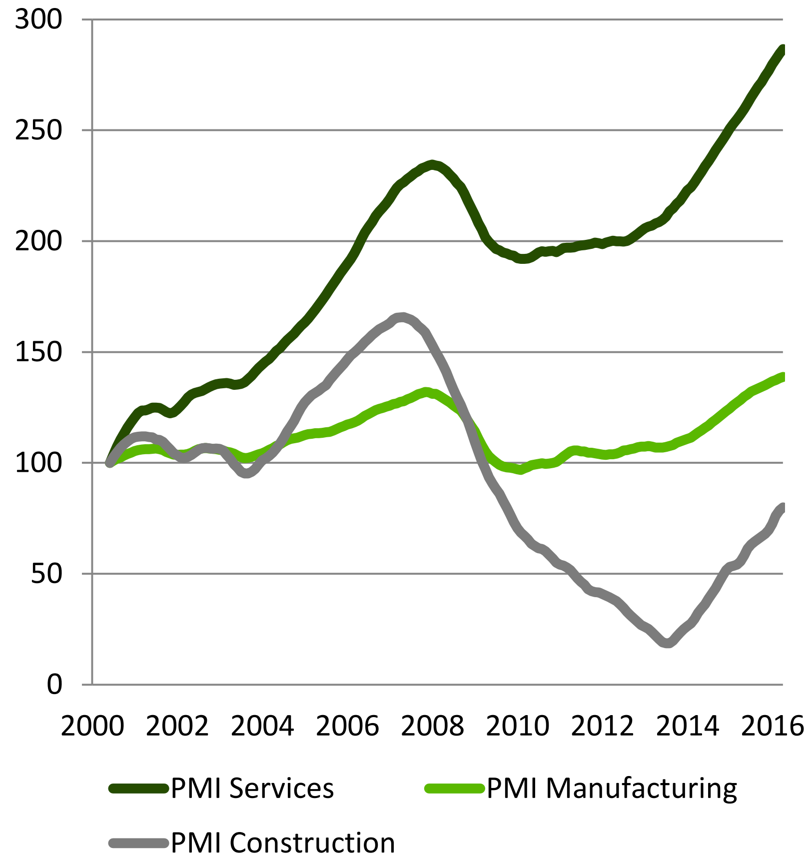
*Trade in aircraft by Irish resident aircraft leasing companies is now recorded in the national accounts. This investment is generally global driven and has little impact on Ireland's economic growth.

High frequency indicators show Ireland's recovery is broad based

Ireland PMI's all in expansionary territory



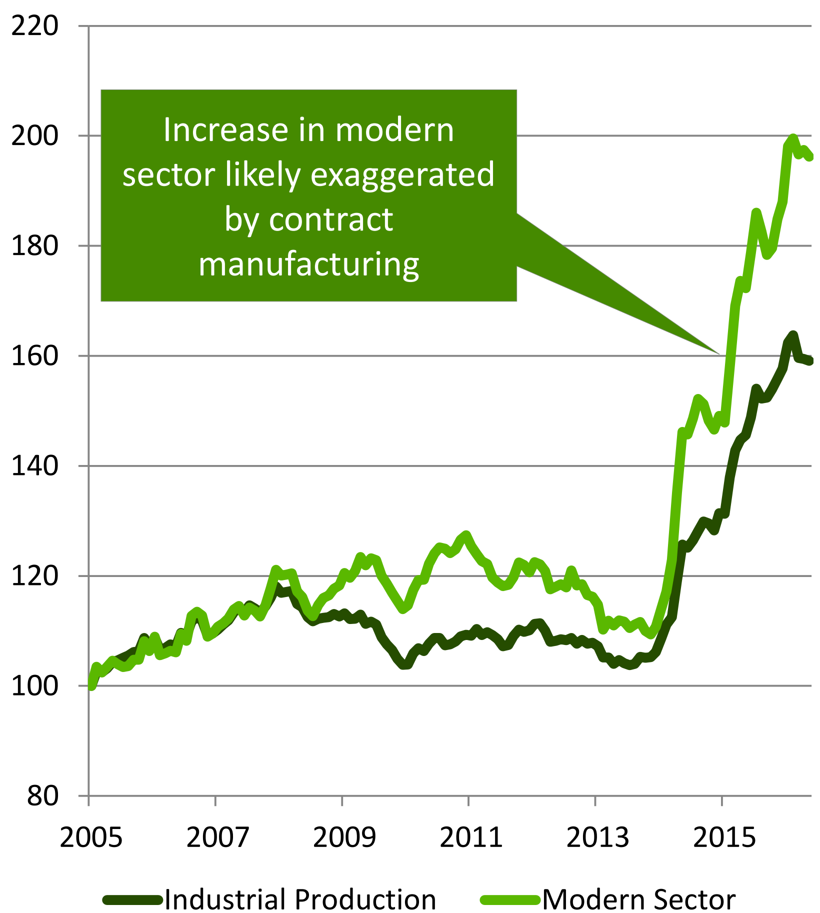
All sectors growing (PMI chg. as cumulative index level, June 2000=100)

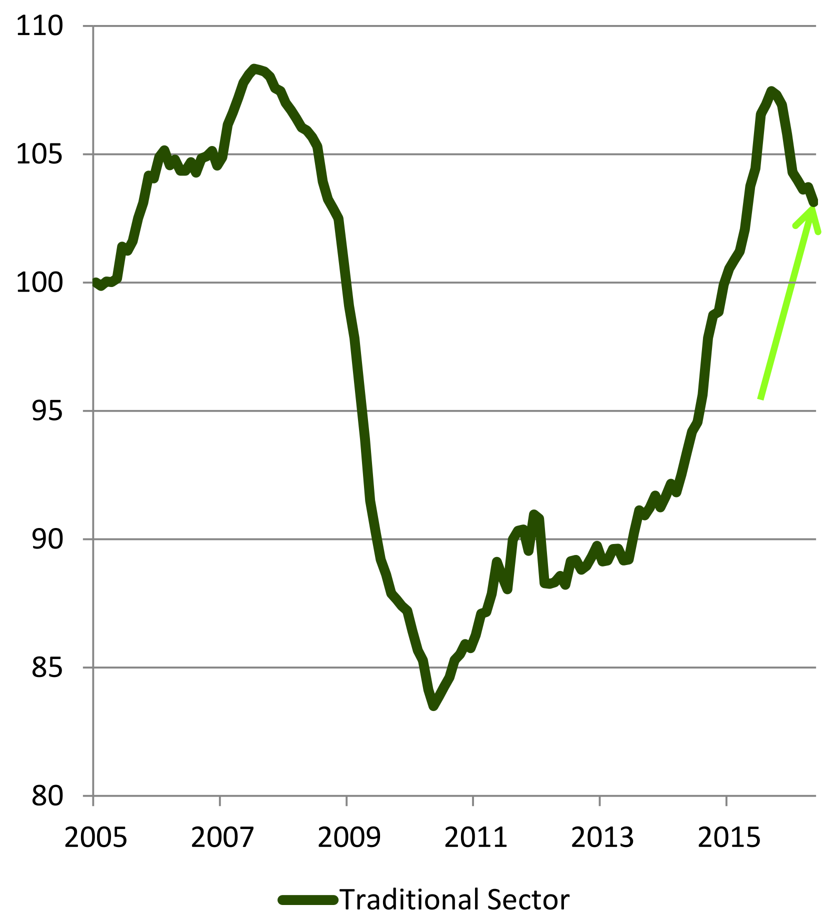


Source: Markit; Bloomberg; Investec ; NTMA workings

Industrial production increasing quickly due to pharma; growth from traditional manufacturing has slowed

6 month moving averages (Jan 2005 = 100)

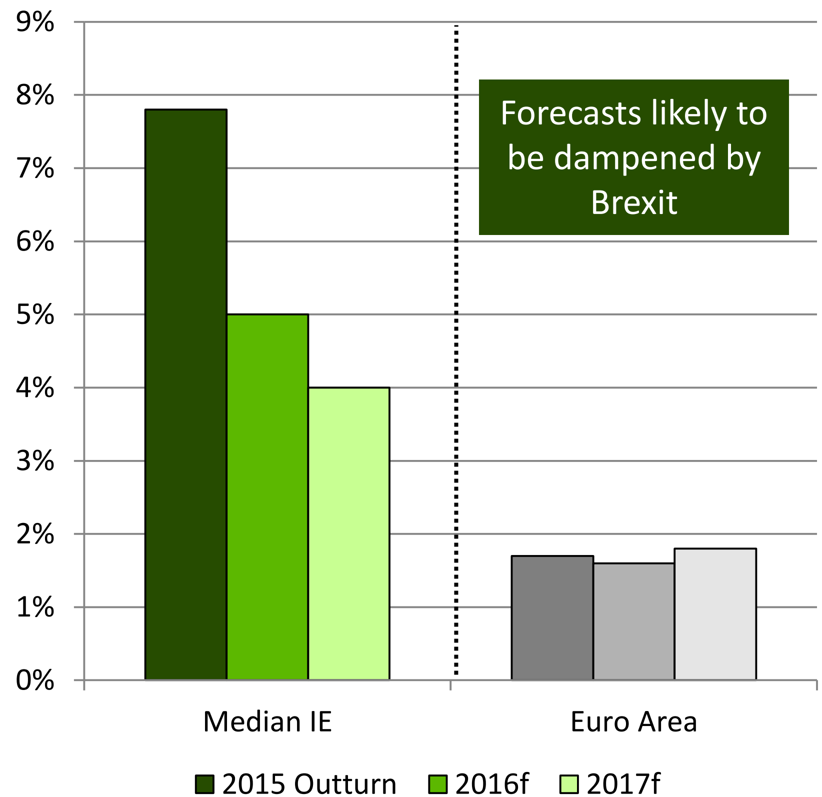




Source: [CSO]

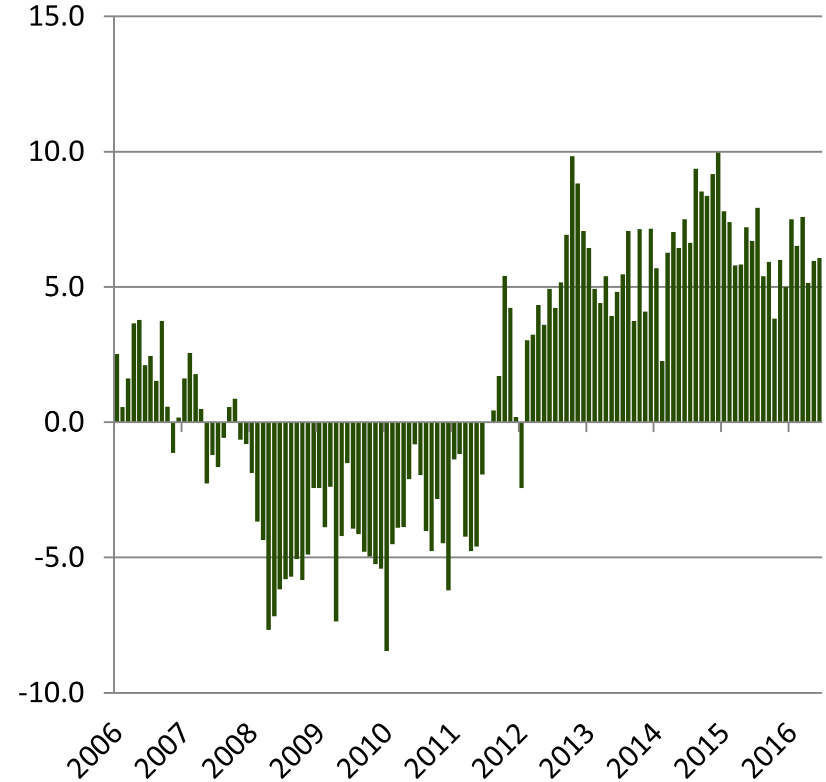
Ireland's economy grew nearly 5x faster than the euro area in 2015; expected to outperform again in 2016

Real GDP Y-o-Y growth rates



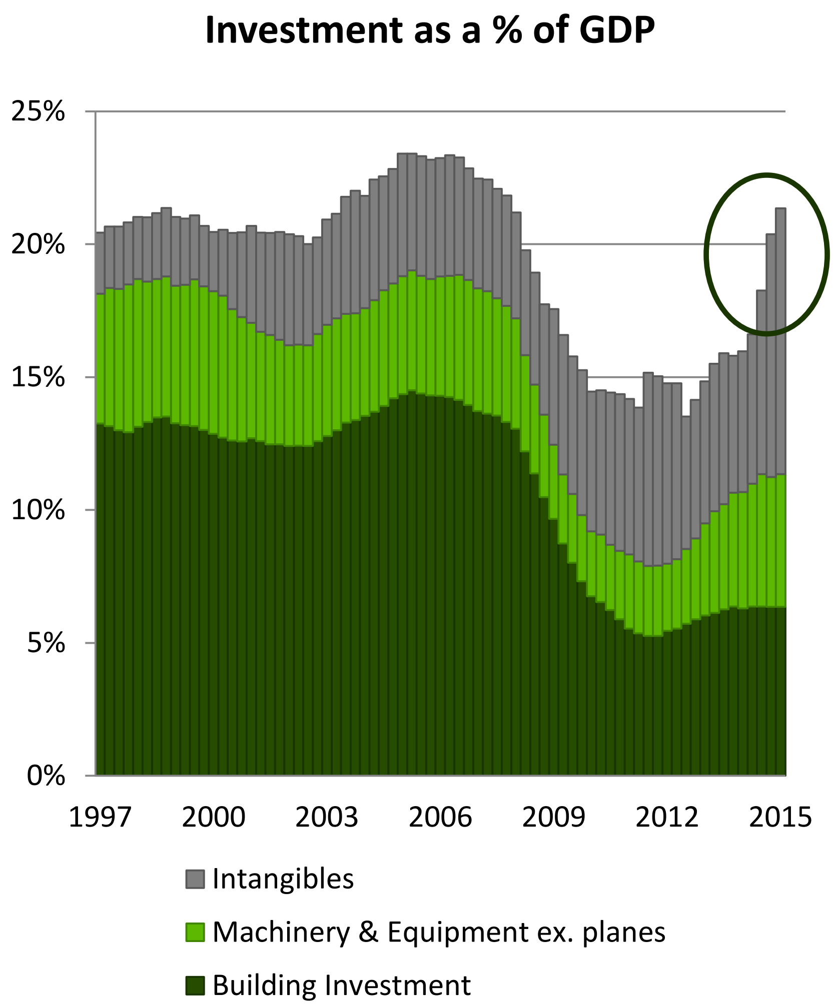
Source: Various forecasters; Euro area forecasts based on [EU Commission Forecasts]

Ireland growing faster than EA
PMI composite difference (pts.)



Source: Markit

Investment as a % of GDP back to pre-bubble levels; composition is different however

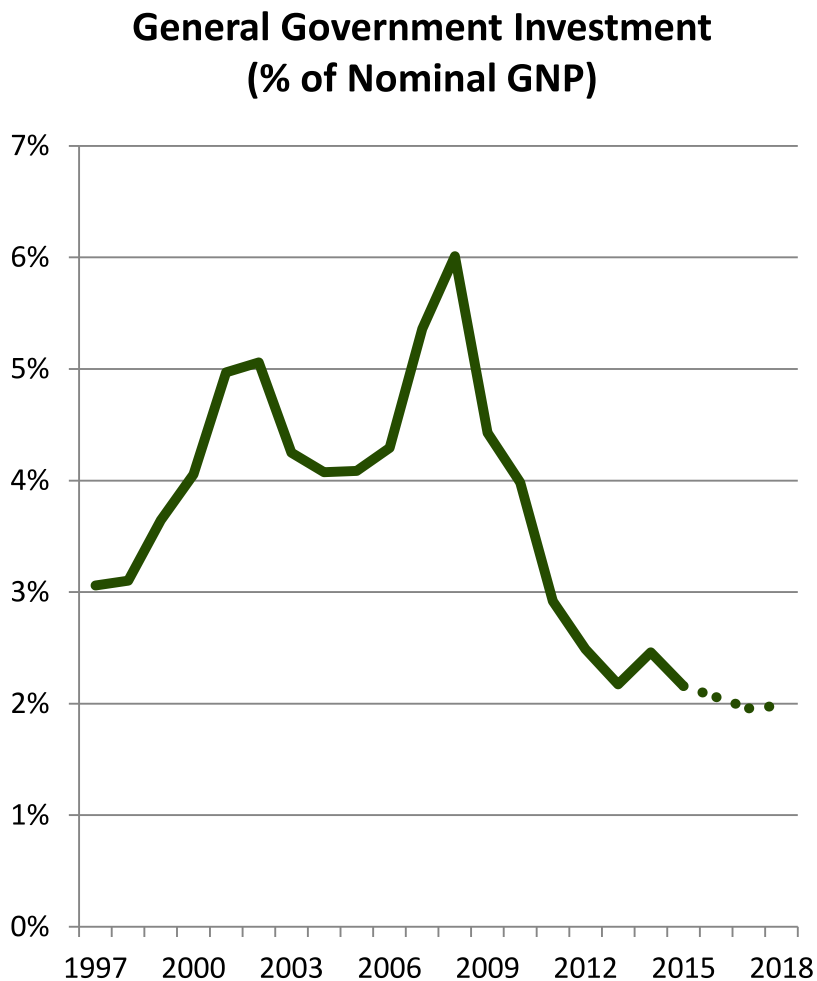


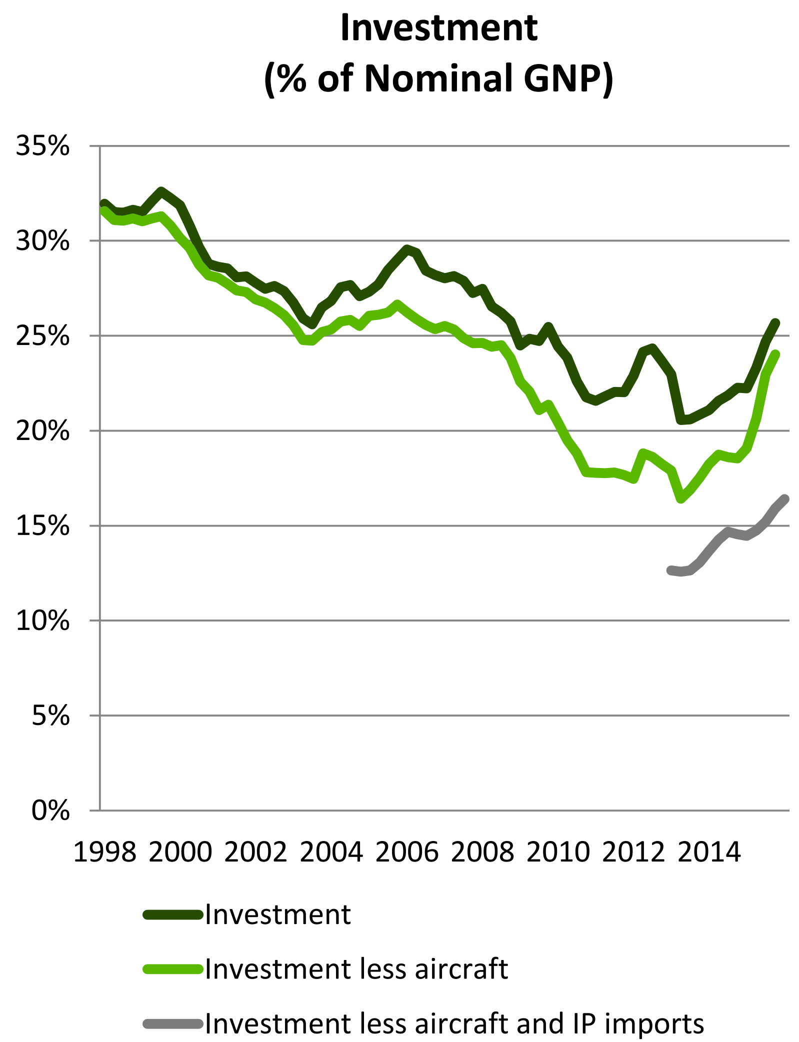
Source: CSO, NTMA analysis

- Investment as a percentage of GDP in 2015 was back to 1997-2003 levels.
- Building investment is now a much smaller part of overall investment - in 2015 it was 6.4% of GDP versus an unsustainable 14.5% in 2006.
- Intangible investment has become a much larger component of Ireland’s investment picture as Ireland has become an ICT hub. Intangibles accounted for 2.3% of GDP in 1997 compared with 10% in 2015.
- The recent sharp increase in intangibles investment likely overstate Ireland’s investment position (see pg. 12).

Please note that this quarterly data is volatile and not as reliable as the published annual data

Underlying investment is growing; Public investment is still low historically



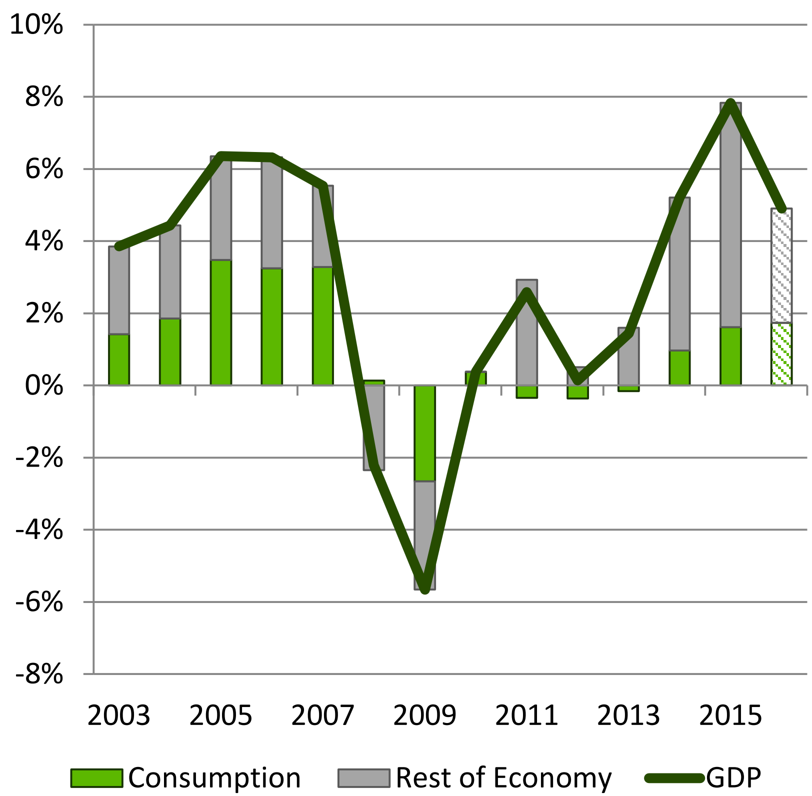


National Treasury Management Agency

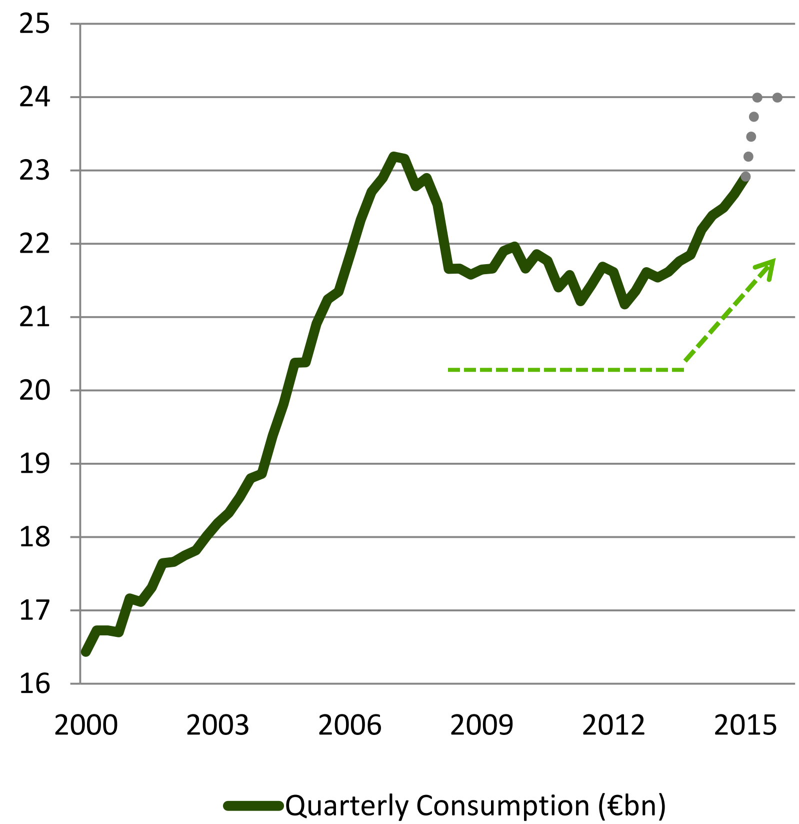
Source: DataStream; CSO, NTMA calculations

Consumption is now a large contributor to growth

Consumption contributed positively to GDP growth in 2014-2015



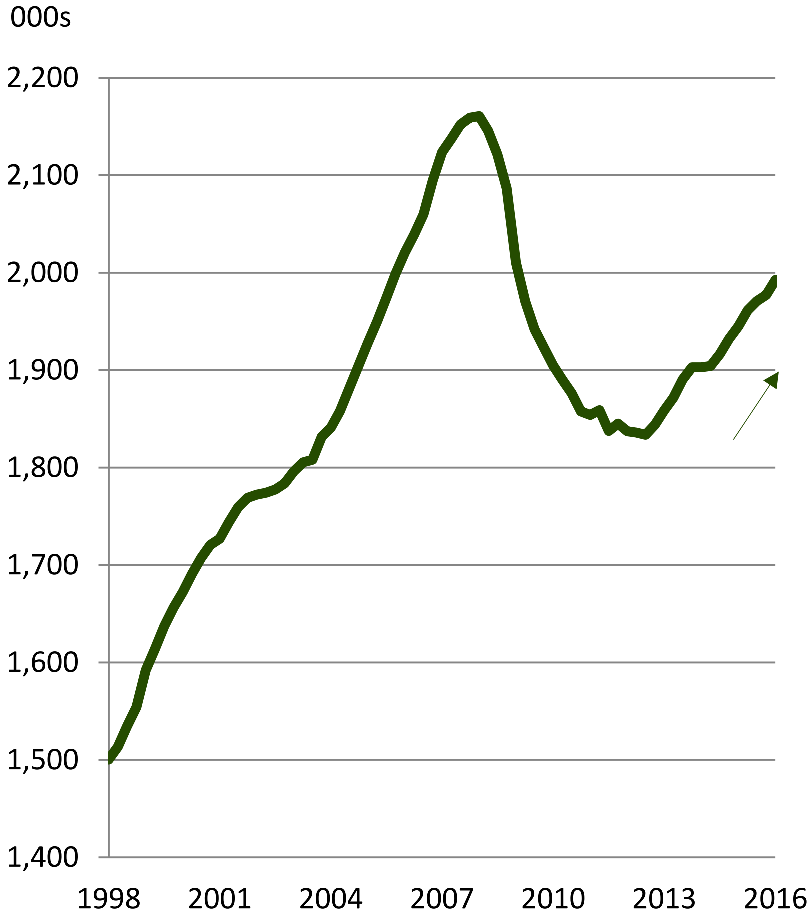
Eight consecutive quarters of positive q-o-q growth for the volume of consumption



Source: [CSO](), NTMA calculations, [Department of Finance forecasts]()

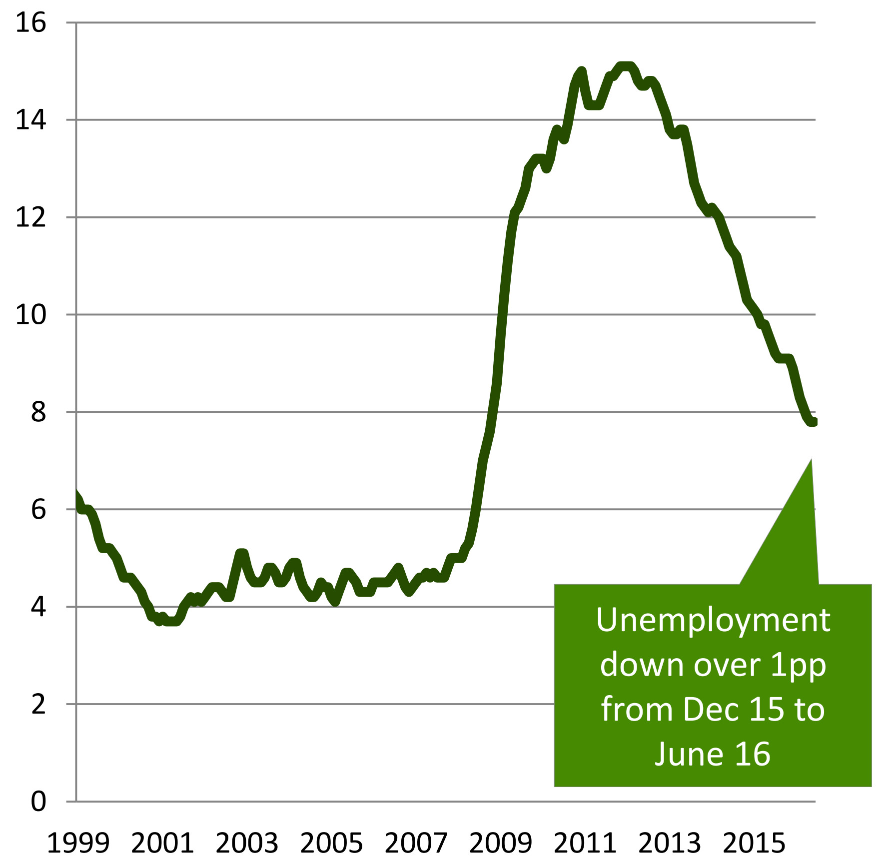
Labour market has rebounded since 2012

Employment up 8.4% from cyclical low



Source: [CSO]

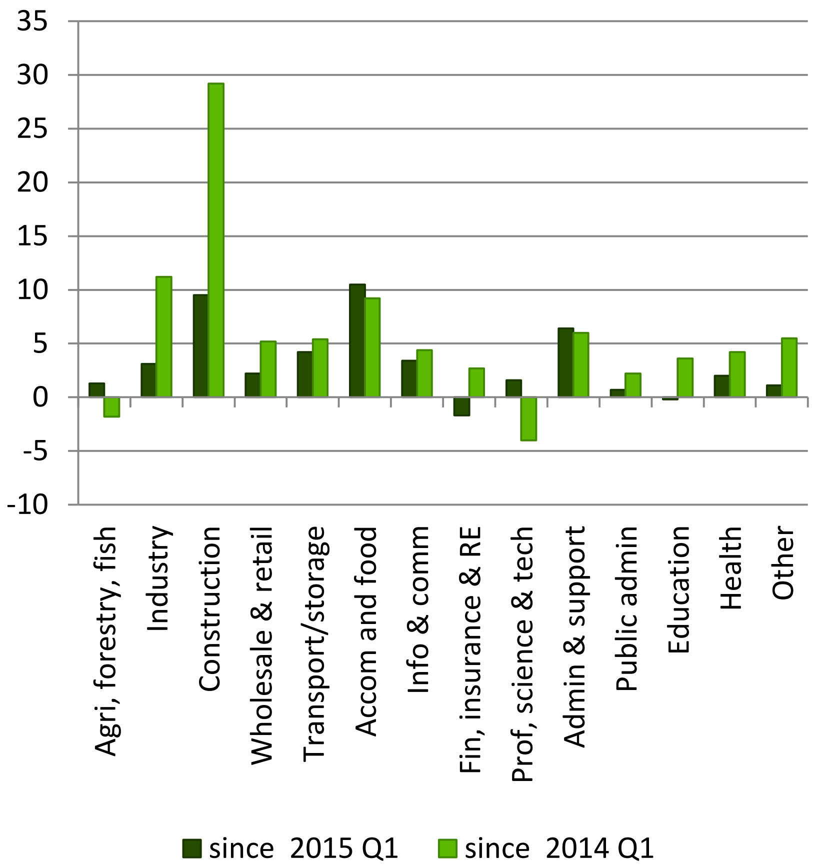
Unemployment rate at 7.8% in June 2016



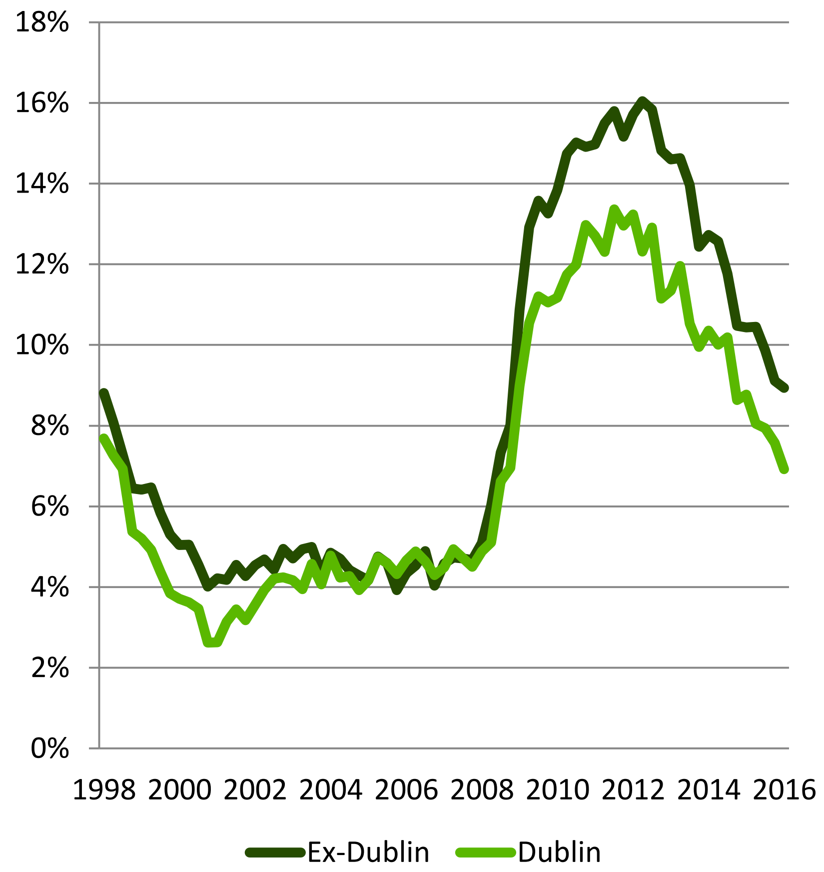
Source: [CSO]

Employment growth is broad based by sector and region

12 out of 14 sectors have seen employment growth in last year (000's)



Unemployment falling across all regions in Ireland

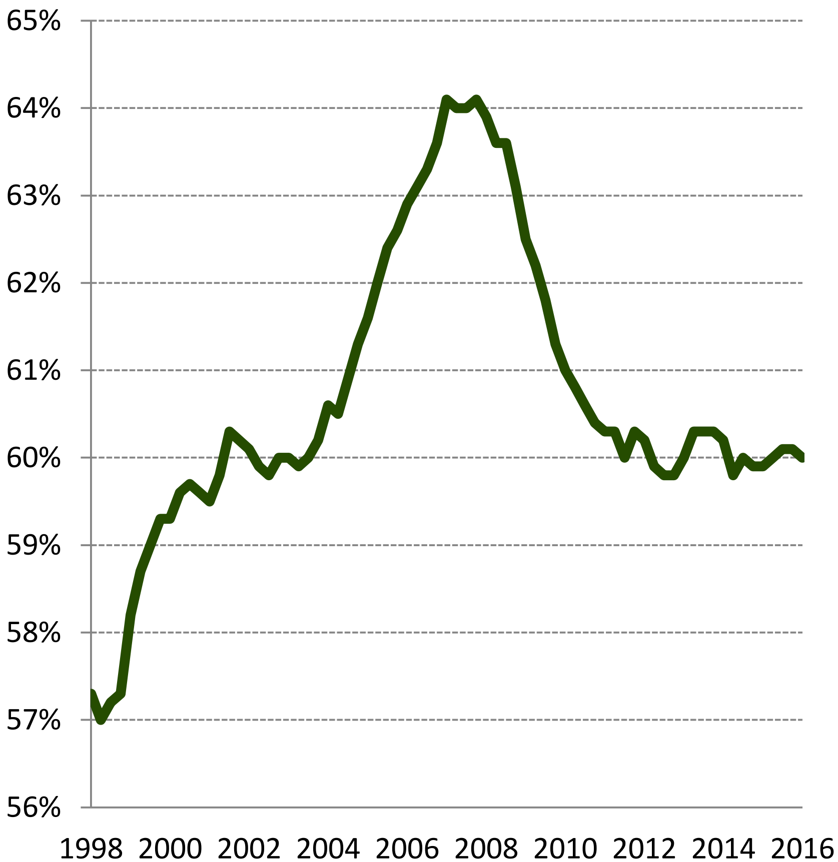


National Treasury Management Agency

Source: CSO

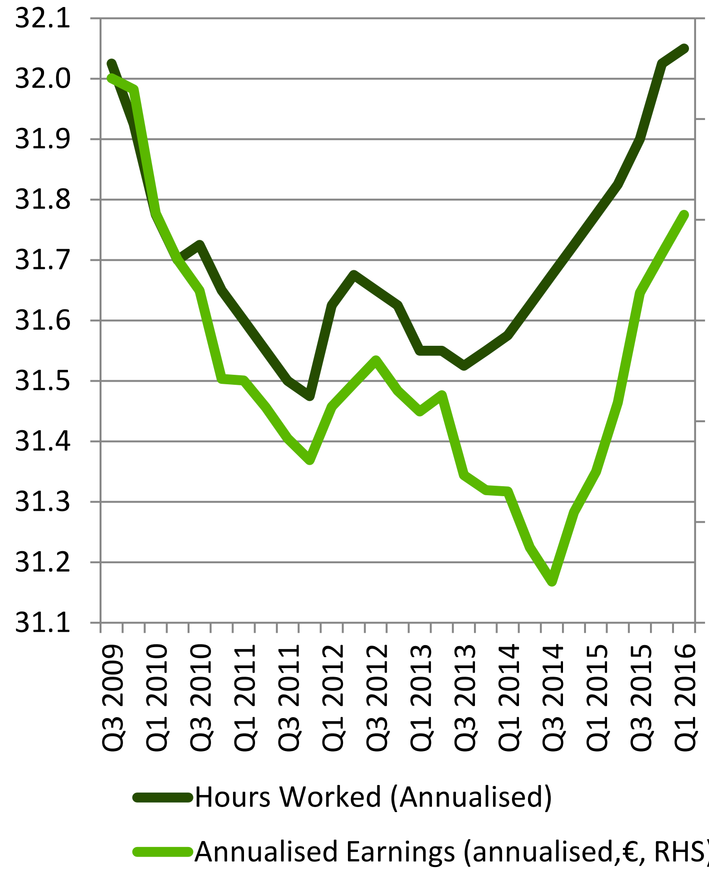
Labour participation has not yet recovered – similar to US; Wages only now rising, pointing to slack in market

Participation rate hovering around 60%



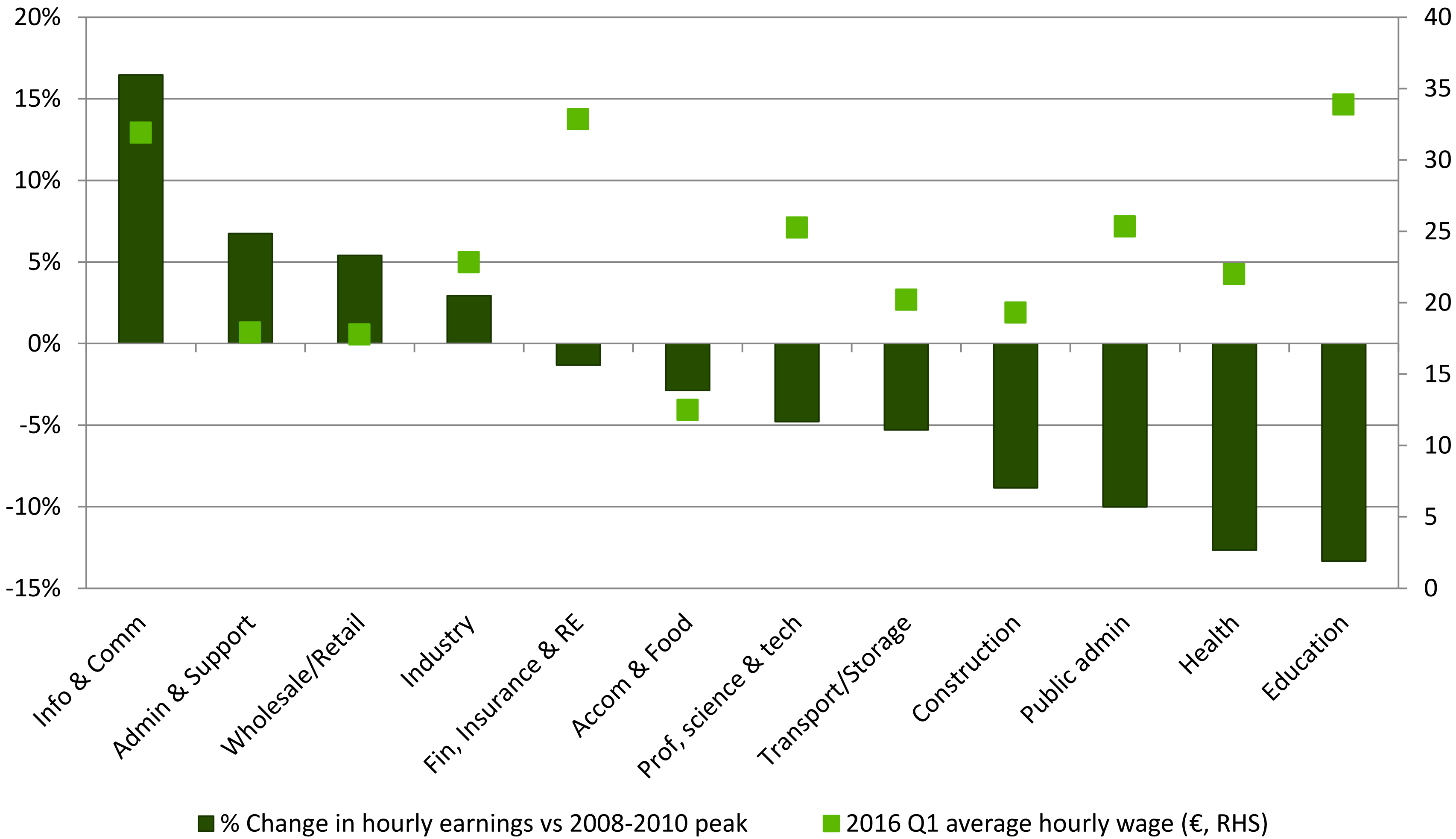
Source: [CSO]

Wages and hours worked beginning to recover, although pockets of excess capacity remain



Source: [CSO]

Wide disparity in wages across sectors



Source: CSO, NTMA analysis

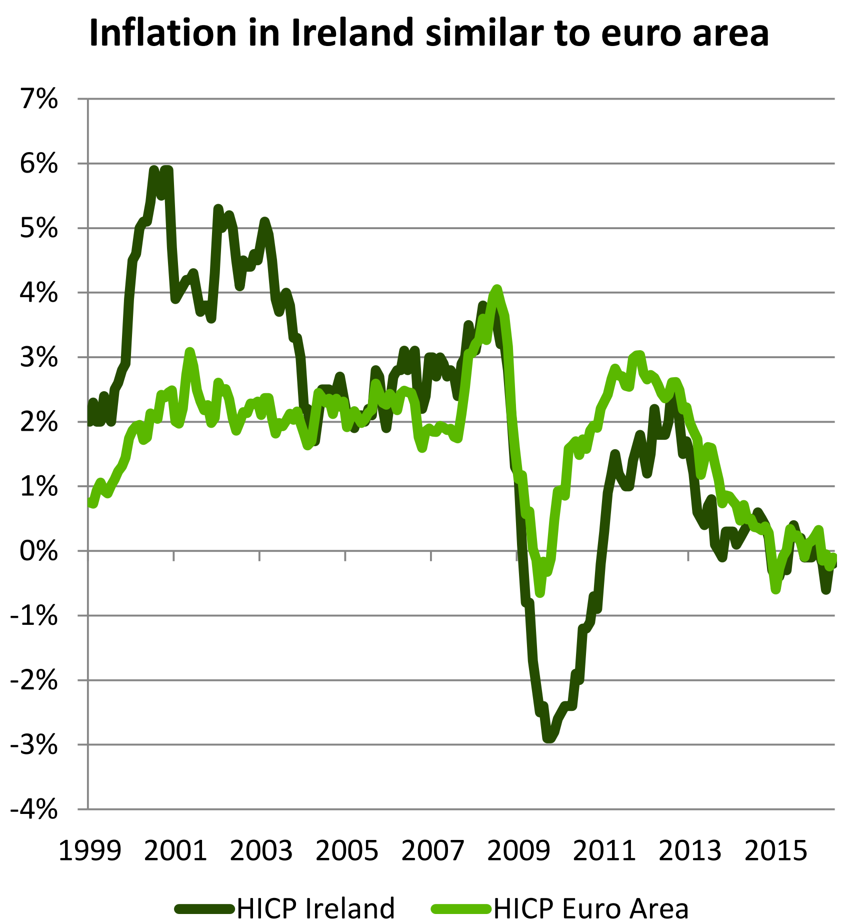
National Treasury Management Agency

Unemployment falling across Europe; falling faster in Ireland

	Q4 2013	Q4 2014	Q4 2015	May 2016*
Germany	5.0	4.8	**4.5**	4.2
Netherlands	7.5	7.1	**6.6**	6.3
Ireland	11.8	10.0	**8.7**	7.8
Belgium	8.5	8.6	**8.7**	8.4
EU28	10.6	10.0	**9.1**	8.6
Euro Area	11.9	11.6	**10.6**	10.1
France	10.1	10.8	**10.6**	9.9
Italy	12.7	13.3	**12.0**	11.5
Portugal	15.5	13.6	**12.4**	11.6
Spain	25.7	23.7	**20.9**	19.8
Greece	27.8	26.1	**24.4**	

Source: CSO; Eurostat *Monthly series which may be subject to revision over time

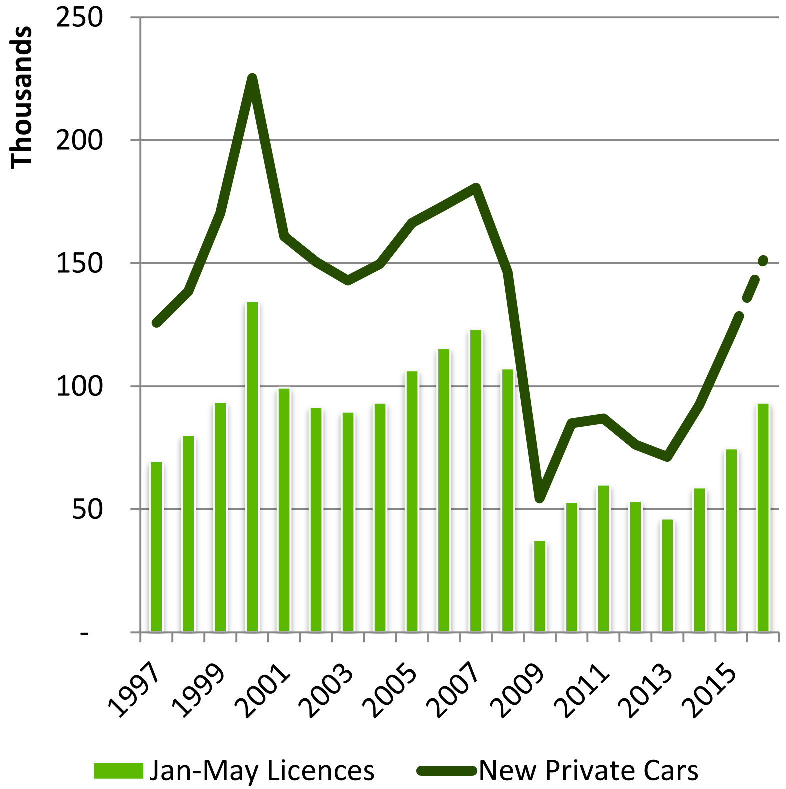
Rising employment and house price rises lift confidence; stagnating consumer prices underpin real income…



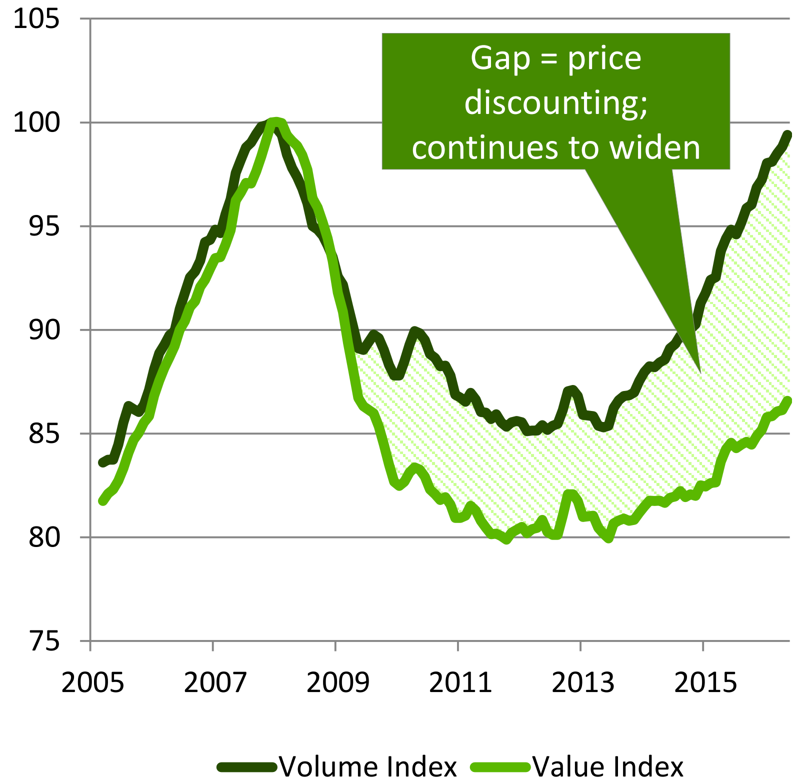
Source: [KBC](), ESRI, [CSO](); Eurostat

… car sales and core retail are seeing the benefit

New car licences - 24.9% increase in first 5 months of 2016



"Core"* retail sales jump (peak=100)

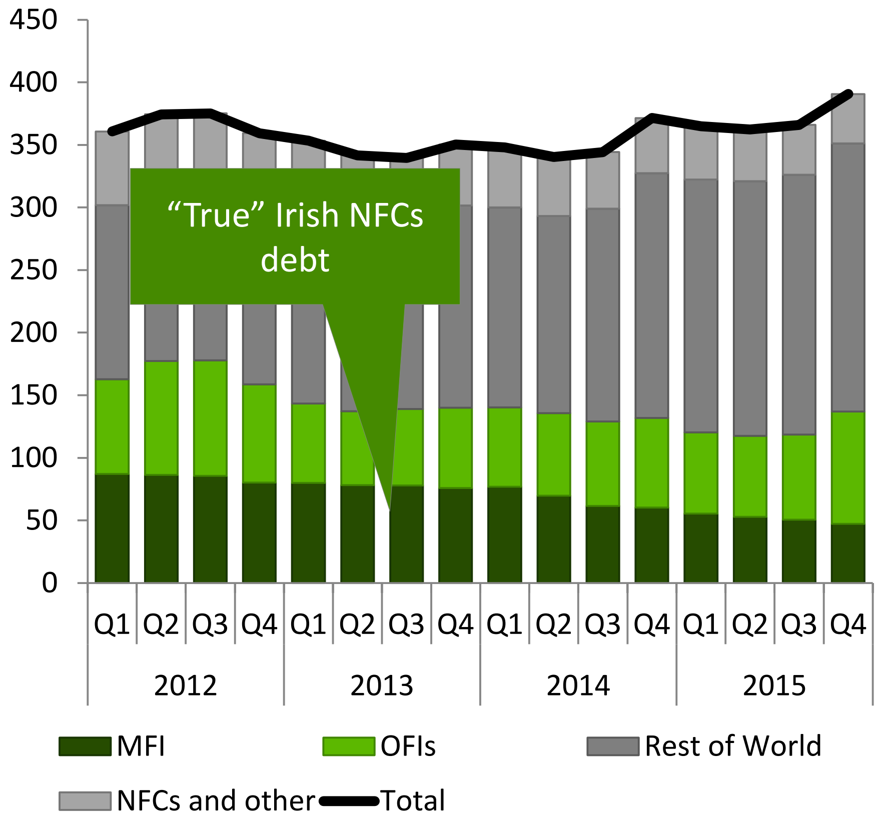


Source: [CSO](#) (licences) [CSO](#) (retail sales)

*Excluding motor trade; 3 month average used

Private debt levels are high, apart from “core” domestic companies

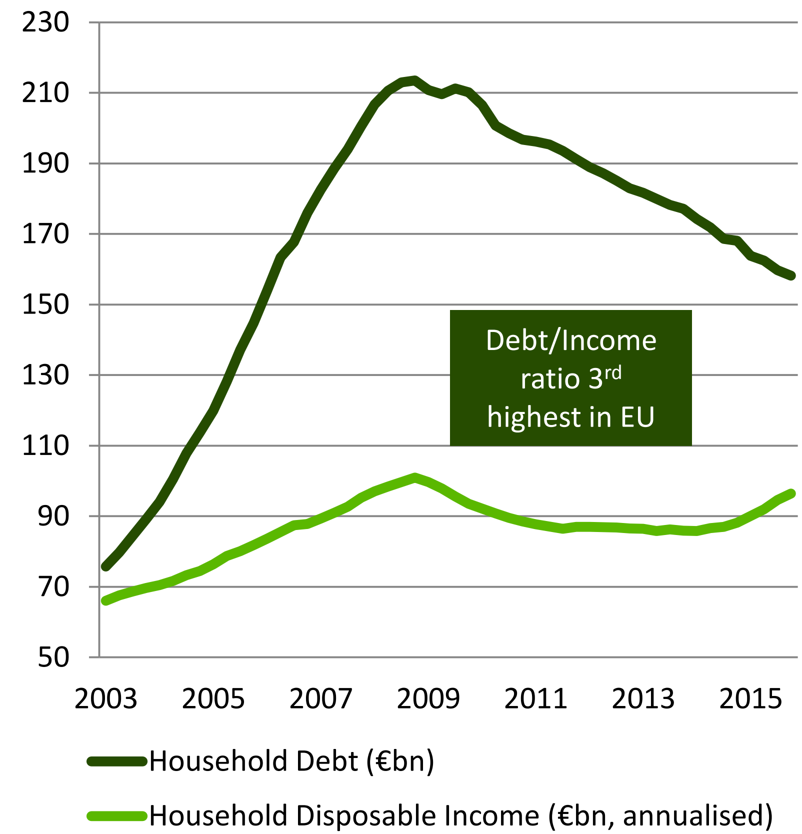
Irish Non-Financial Corporate (NFC) debt is distorted by multinationals (€bn)



Source: CBI

Note: OFI = Other Fin. Intermediaries

Debt-to-income ratio in Q4 2015 at 164%*, the lowest since Q2 2005



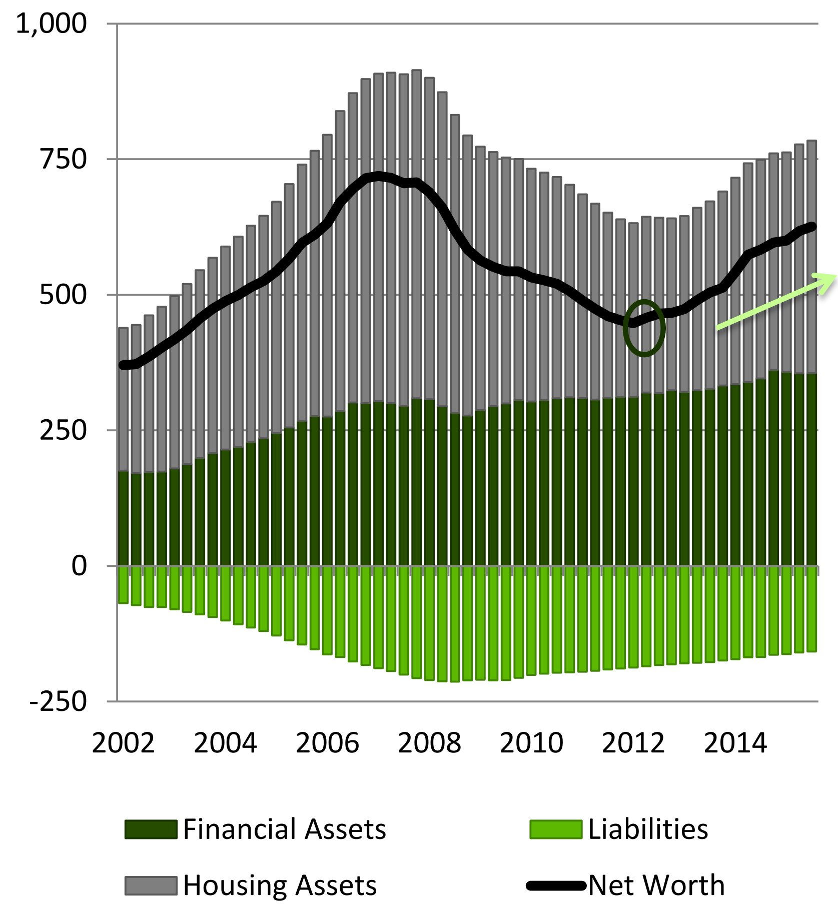
Source: CBI, CSO

* Measure includes both loans and other liabilities. Excluding other liabilities, debt-to-income ratio is 155%

National Treasury Management Agency

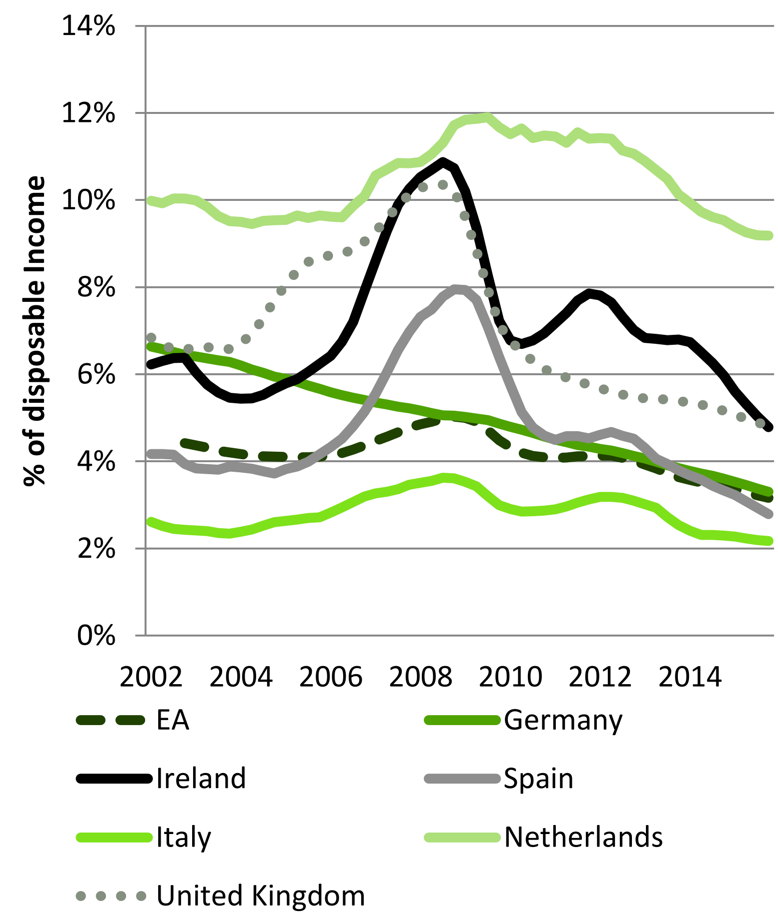
Household deleveraging continues, but at slow pace; Rising house prices bolster HH balance sheets

Household net worth (€bn) improved in 2015 and has underpinned consumer spending



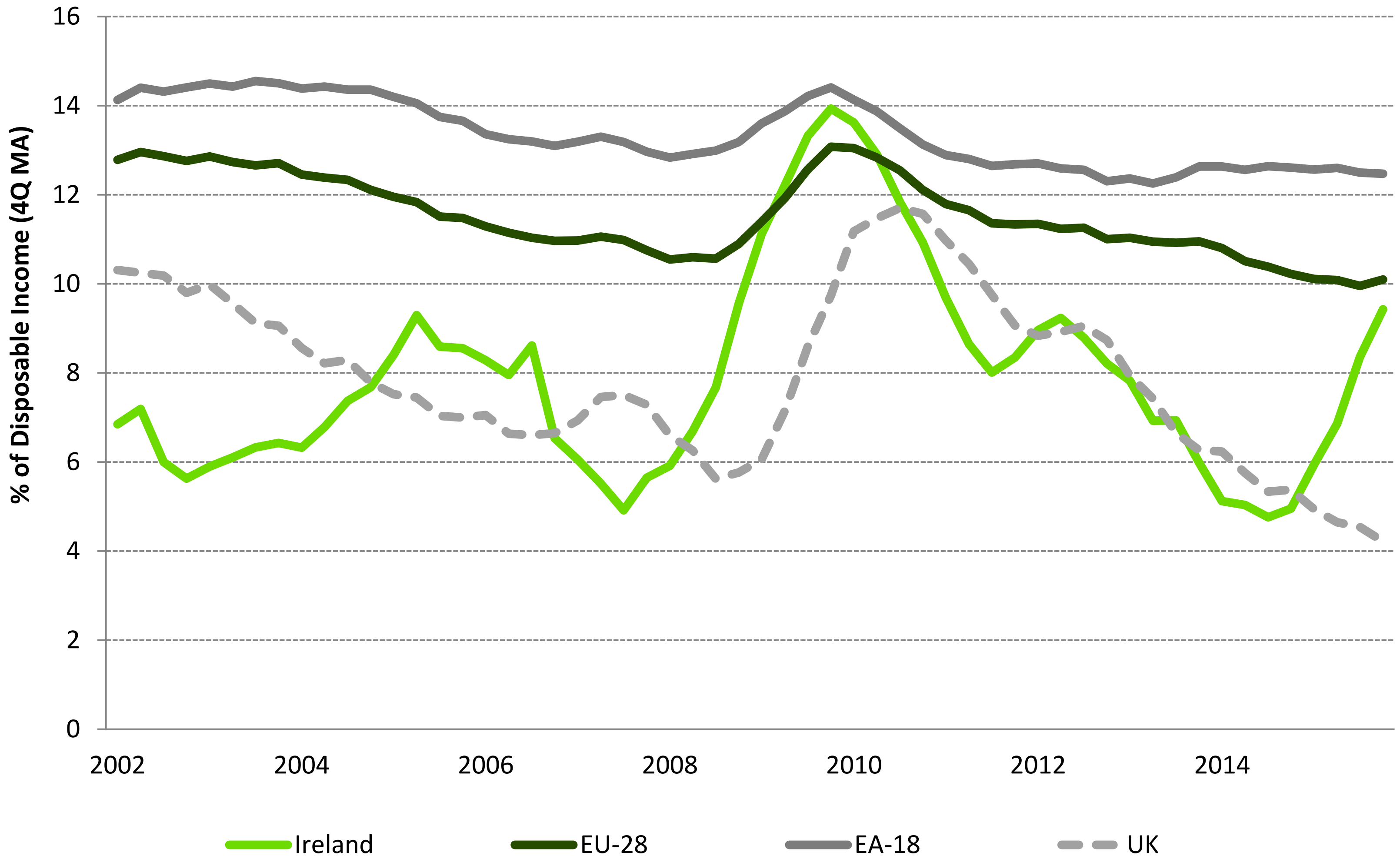
Source: CBI, NTMA Calculations

Interest burden on households has been suppressed by tracker mortgages and ECB



Source: CBI, NTMA calculations
Note: Non-trackers bare 80% of the interest burden

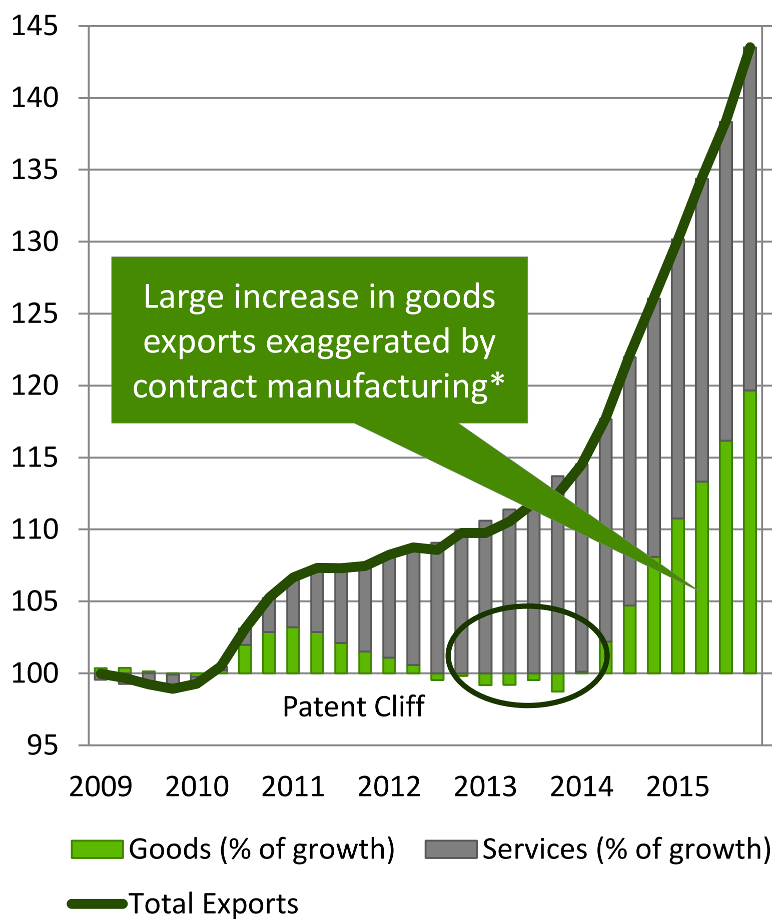
Gross household saving rate increased in 2015



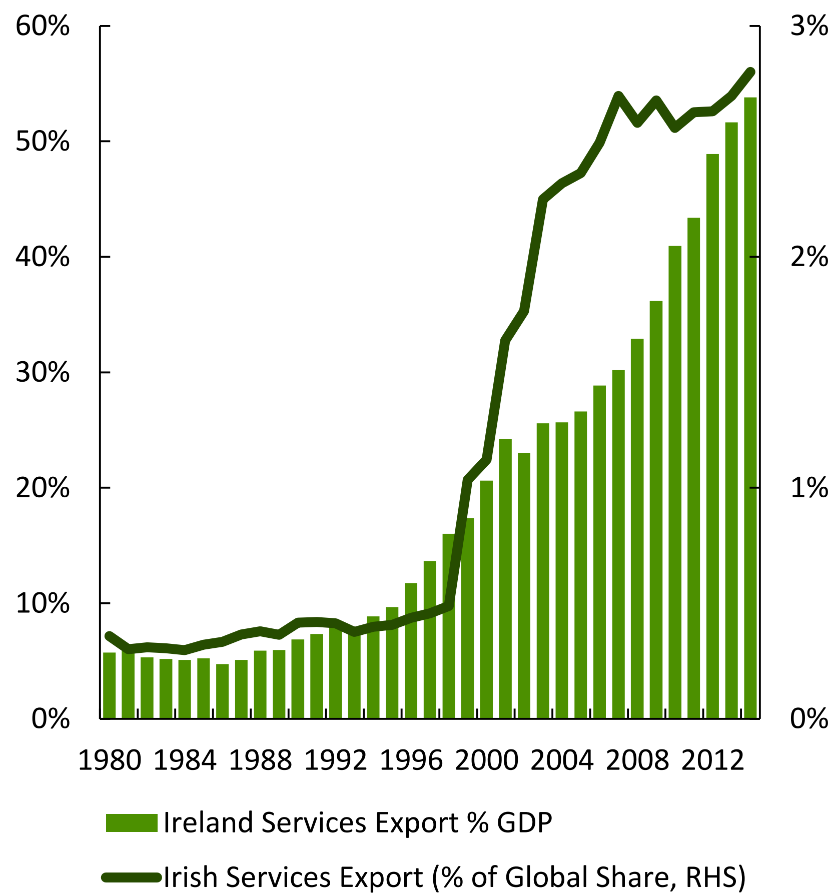
Source: Eurostat, CSO

Services exports have driven strong export performance post-crisis

Cumulative post-crisis exports (4Q sum to end-2008 = 100)



Ireland has tripled its share of global service exports in the last 15 years

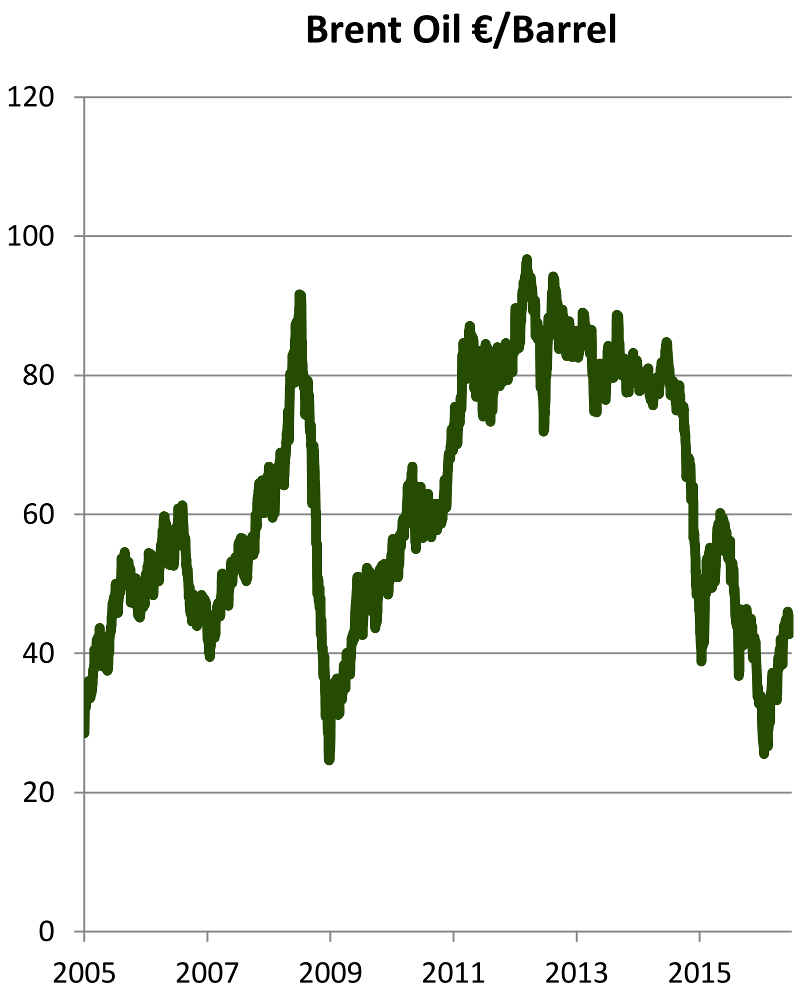


Source: CSO, NTMA calculations

Source: CSO, World Trade Organisation

* For discussion on contract manufacturing and its limited effects on Ireland's National Accounts, please see here.

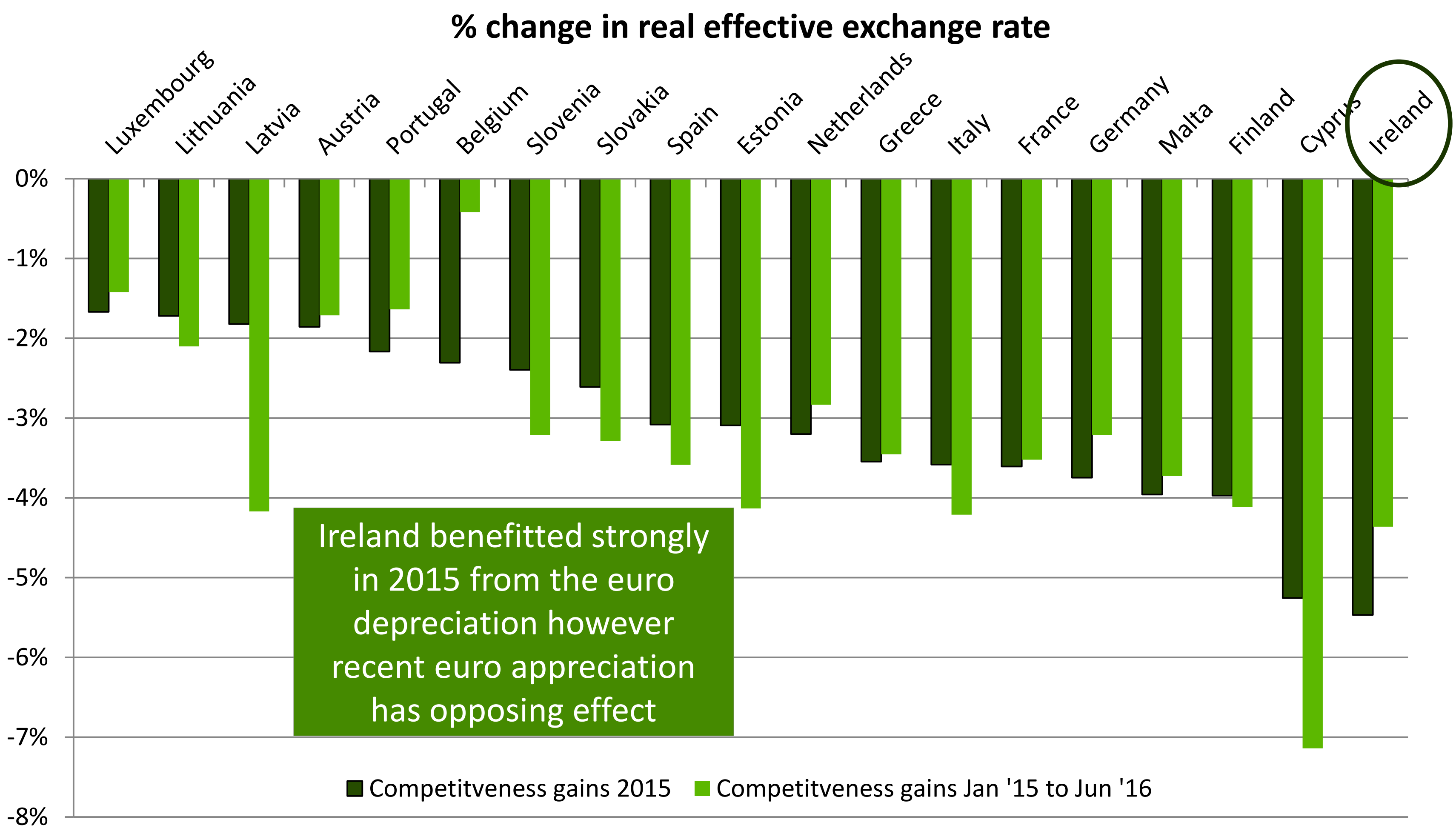
External factors boosted exports and GDP growth in 2015; Brexit headwind likely in next 12-18 months



Source: Bloomberg

Source: CBI, NTMA workings

Ireland has benefited the most in 2015 from euro depreciation; recent appreciation pares this back



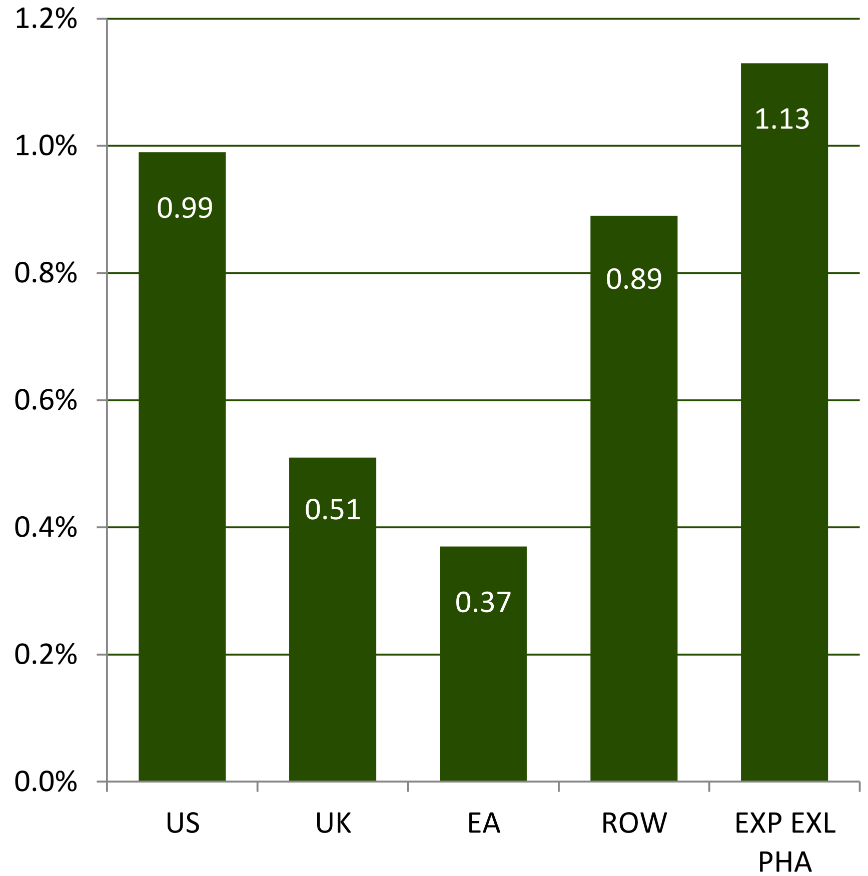
Source: Bruegel - 'Real effective exchange rates for 178 countries: a new database'; NTMA Workings

Note: REERs cover business sector excluding agriculture, construction and real estate activities and are calculated against 30 trading partners using fixed weights from Q1 2008. Data available to **Jun 2016**. See Darvas, Z (2012) for more details.

Ireland’s goods exports respond vigorously to euro movements – both good and bad

- A 1% depreciation of the euro increases Irish goods exports to the US by 1%
- The equivalent response for exports to the UK is 0.5% and to the rest of world is 0.9%. Brexit has the opposite effect on Irish exports.
- The EUR/USD exchange rate has a positive effect (elasticity of 0.37) on Irish goods exports to the euro area, due to Ireland-based multinational companies’ exports to EA for onward sale to the rest of the world
- The elasticity of total goods exports excluding pharma to the exchange rate >1

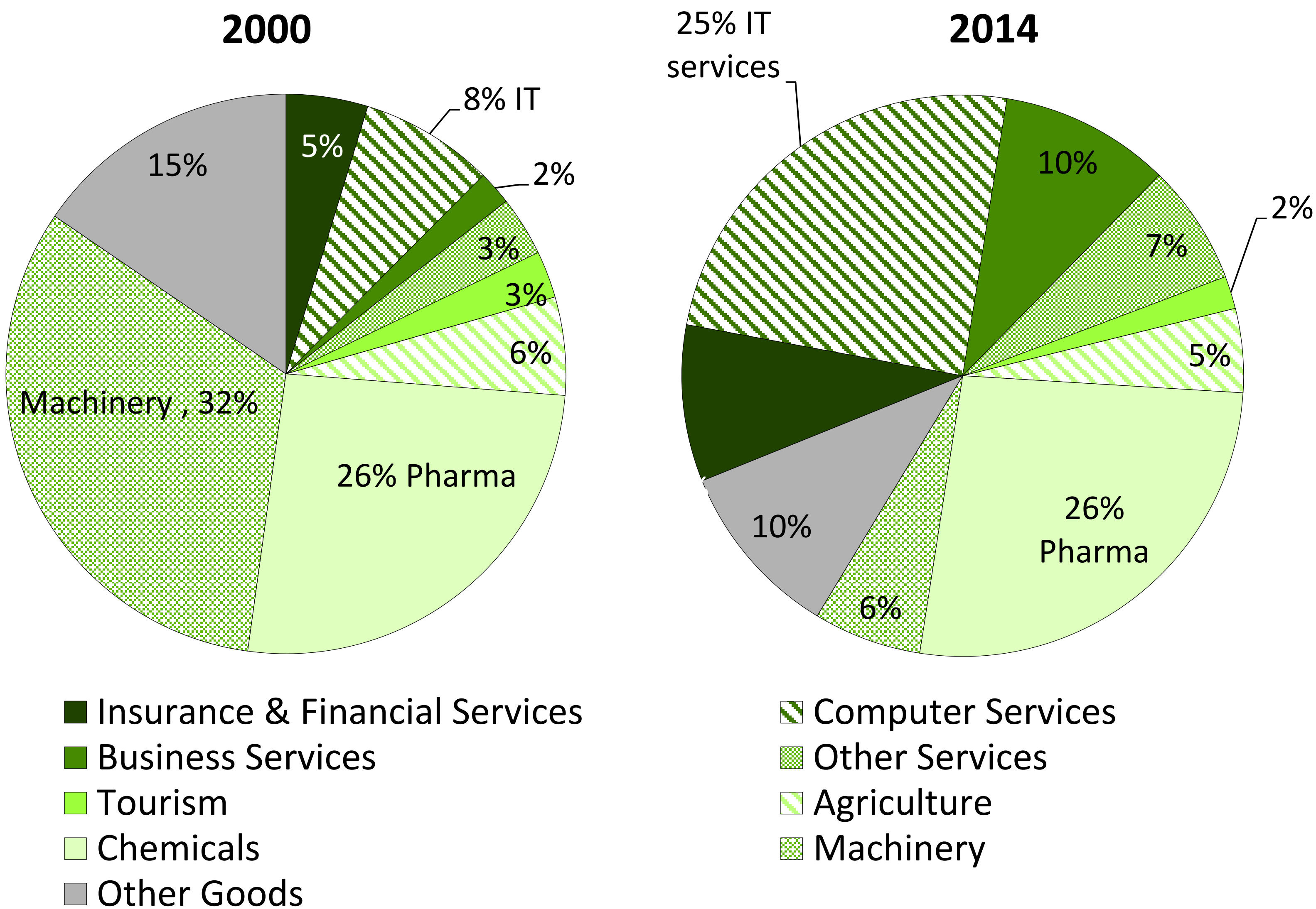
Response of Irish goods exports to 1% depreciation of the euro



Source: CSO; NTMA empirical analysis

Note: All coefficients significant at 99% level

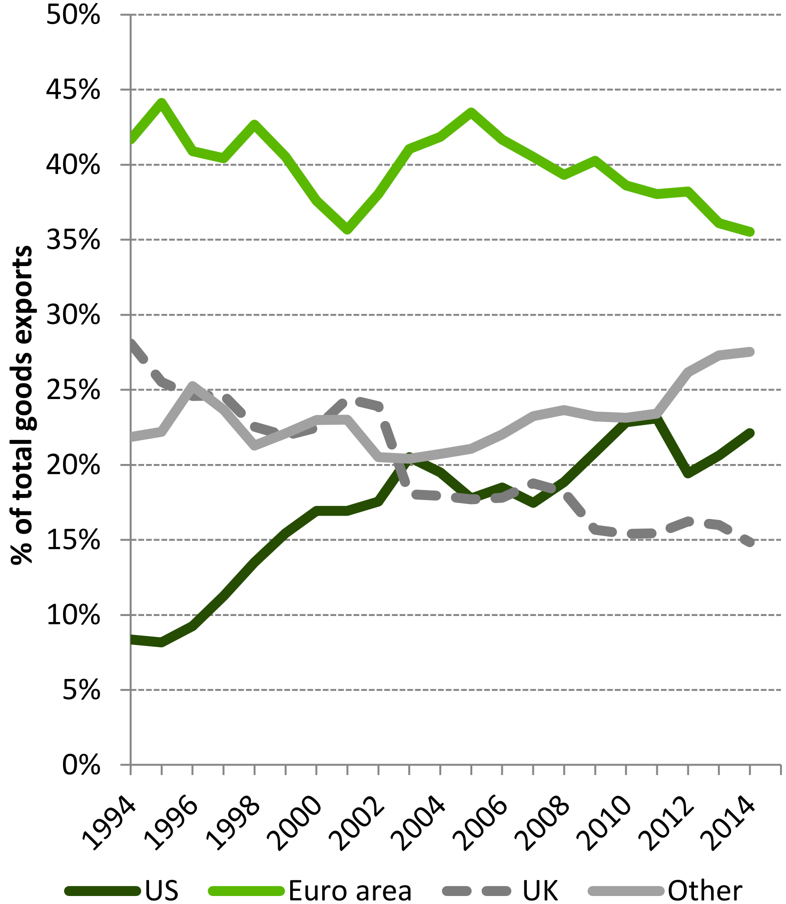
Export structure has changed dramatically, thanks to the arrival of new technology/ social media firms



Source: CSO, DataStream

Ireland's openness has been critical to Irish success; Brexit is an obvious headwind to export-led growth

Ireland benefits from export diversification by destination



Source: [CSO]

Breakdown of Irish trading partners - % of total

	Goods		Services	
2014	**Exports**	**Imports**	**Exports**	**Imports**
US	22.0%	13.5%	8.3%	25.9%
UK	14.8%	28.7%	19.8%	10.4%
EA	35.4%	25.1%	31.8%	30.9%
China	2.3%	5.7%	1.3%	0.3%
Other	25.5%	26.9%	38.7%	32.5%

Source: CSO (2014)

Economic and fiscal forecasts

	2013	2014	2015	2016f	2017f
GDP (% change, volume*)	1.4	5.2	7.8	5.0	4.2
GNP (% change, volume)	4.6	6.9	5.7	4.1	3.7
Domestic Demand (Contribution to GDP, p.p.)	-1.2	4.2	4.5**	4.9	3.0
Net Exports (Contribution to GDP, p.p.)	2.6	0.1	2.3**	0.7	0.9
Current Account (% GDP)	3.1	3.6	*4.4*	*4.5*	*3.9*
General Government Debt (% GDP*)	120.1	107.5	93.8	*88.0*	*85.2*
General Government Balance (% GDP*)	-5.7	-3.9	-2.3	-0.9	-0.4
Inflation (HICP)	0.5	0.3	0.0	0.4	1.7
Unemployment rate (%)	13.1	11.3	9.5	8.4	7.8

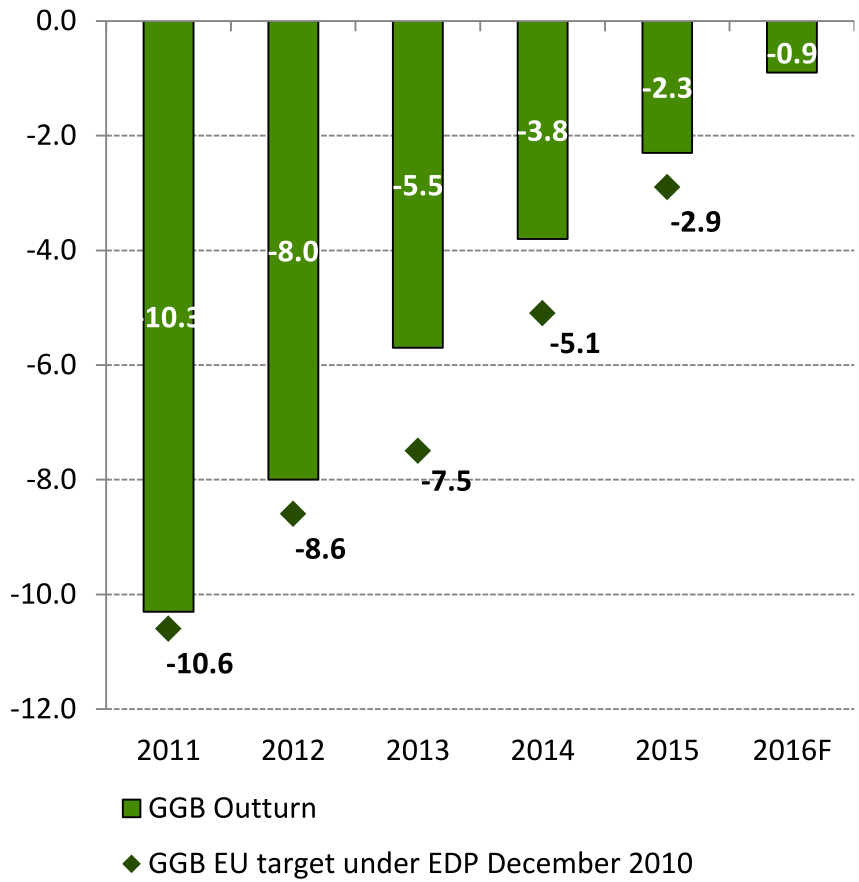
Source: CSO; Forecasts from Department of Finance (SPU 2016)
** Source: Department of Finance Summer Economic Statement*
*** Adjusted for distortions in National Accounts data*

SECTION 2: FISCAL & NTMA FUNDING

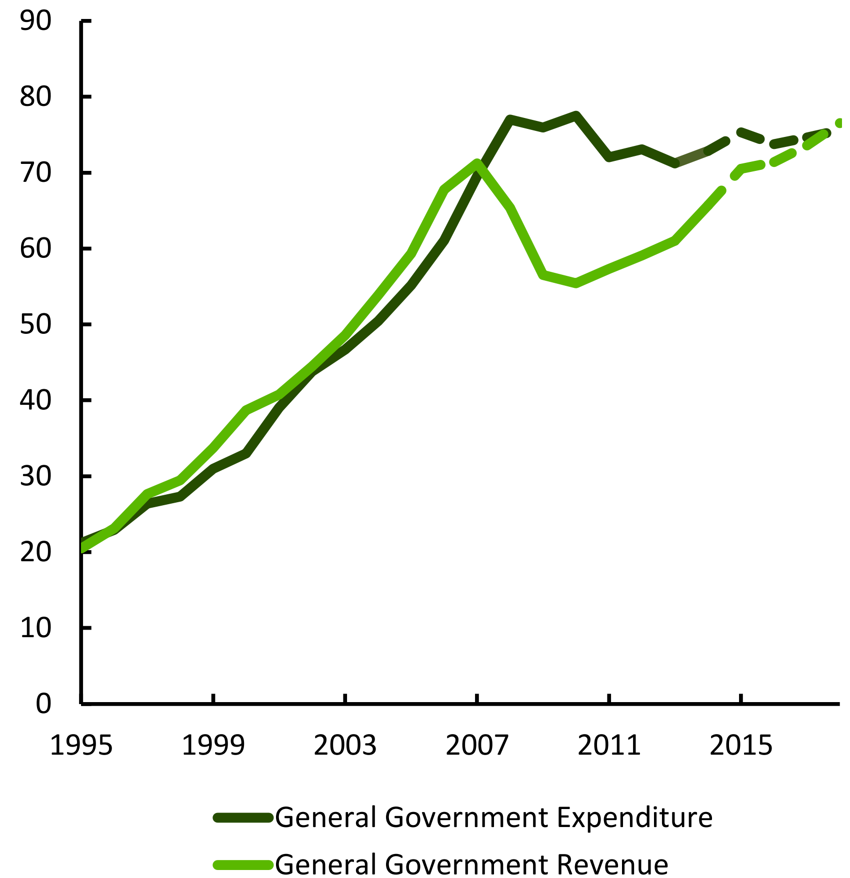
Ireland’s Government debt ratio to 93.8% of GDP in 2015; Ireland on track for 1% of GDP deficit at half-year stage

Five straight years of fiscal outperformance

General Government Balance (% of GDP)



Deficit forecast to be fully closed by 2018 (€bn)



Source: Department of Finance, CSO *2016 = DoF forecast

New EU fiscal rules for Ireland – same desire to meet them

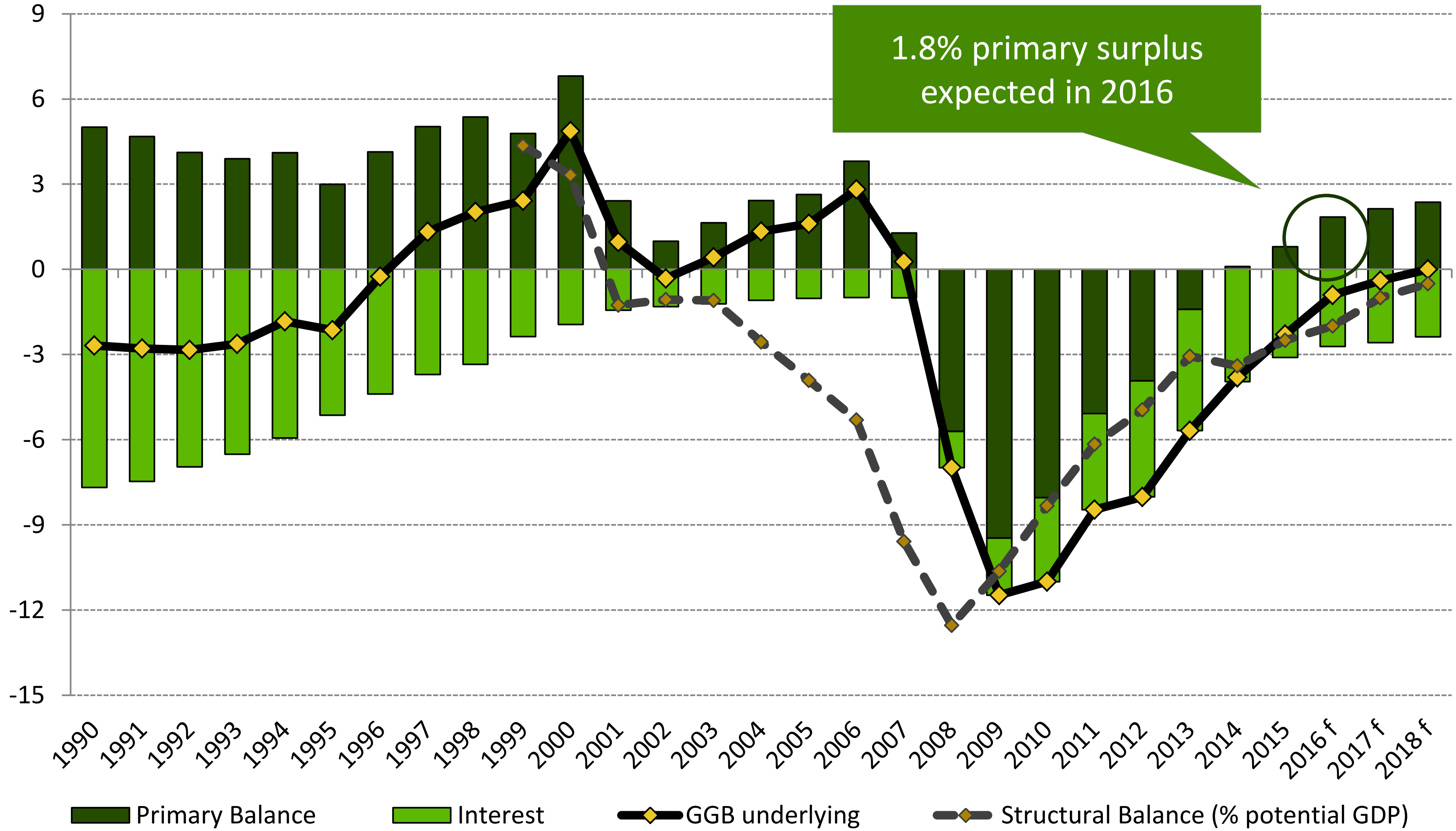
2011 – 2015 EDP		**2016 – 2019 Preventive Arm**
Objective: Deficit reduction in nominal terms	→	Objective: Balanced budget in structural terms

Requirements of Preventive Arm

1. Ireland must improve its structural balance by 0.6% of GDP in 2016 and meet its medium-term objective of -0.5% of potential GDP structural balance by 2018.
2. Ireland must comply with the Expenditure Benchmark. The Benchmark explicitly sets the rate at which public expenditure can grow in the absence of revenue-raising measures.

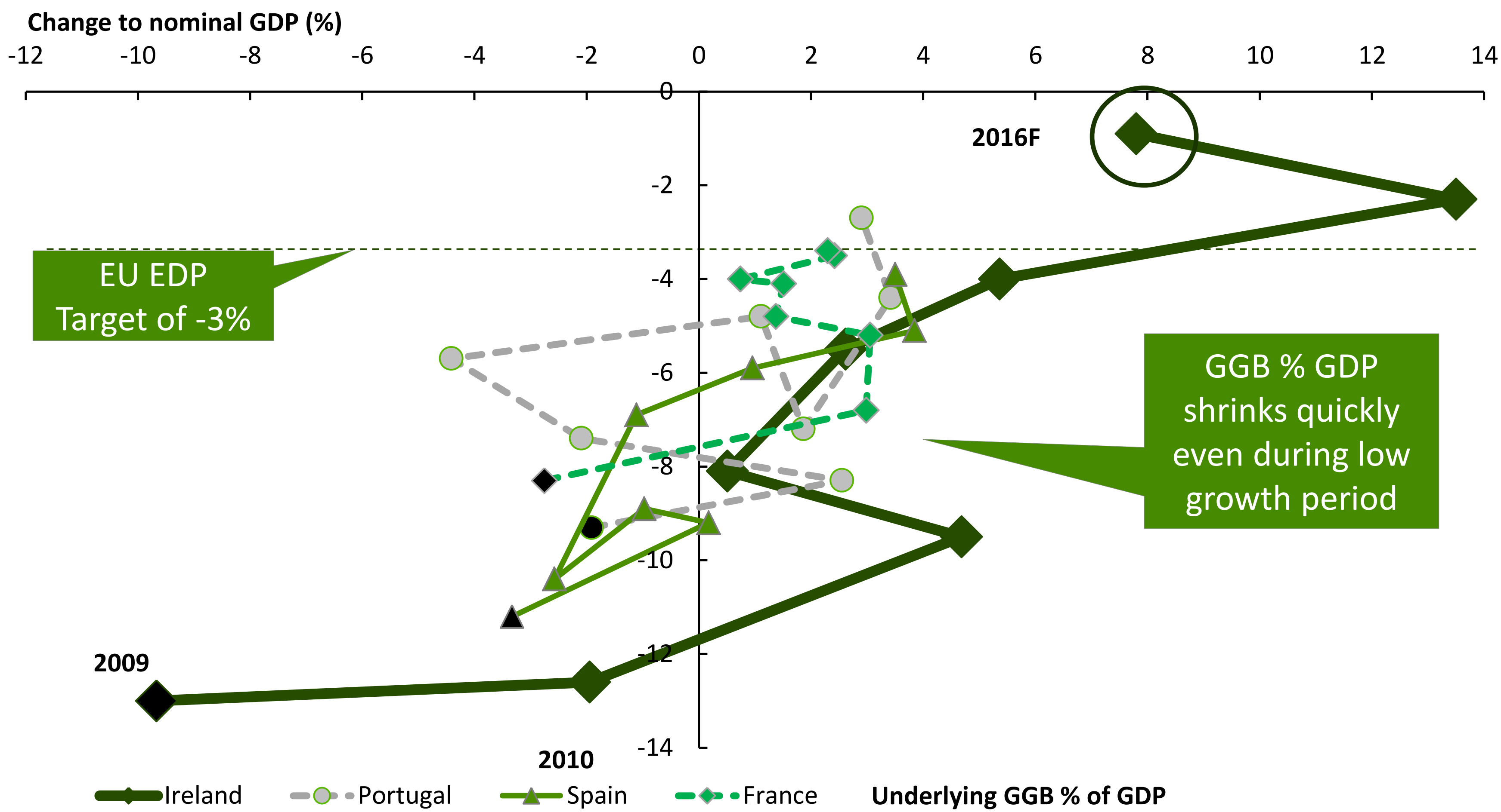
Adherence to these rules will be judged ex-post. Budgetary plans are laid out to ensure these conditions are met.

Ireland has confirmed debt sustainability: debt is falling naturally through "snowball" effect



Source: Department of Finance; Eurostat; IMF

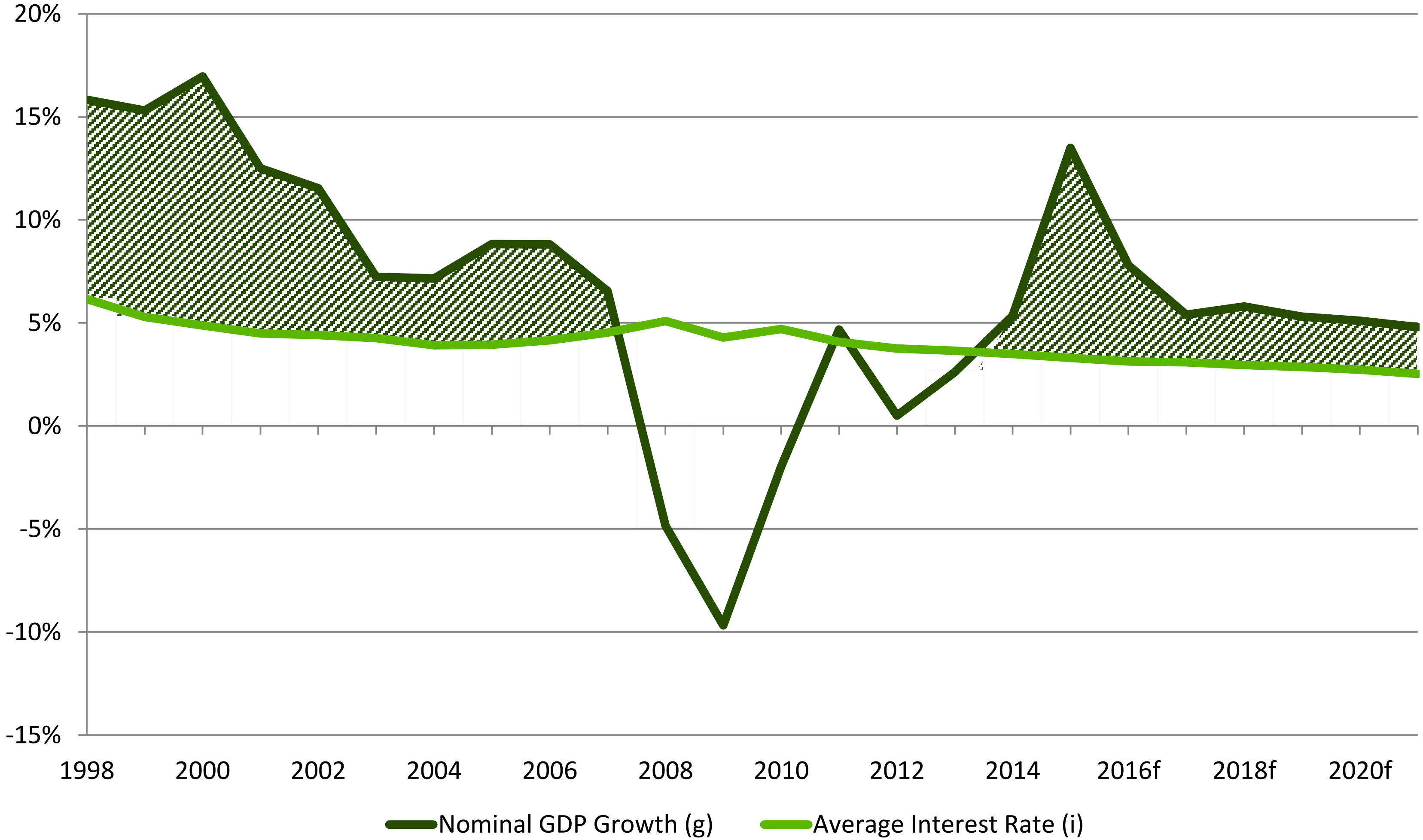
Ireland’s fiscal adjustment route quicker than peers



Source: European Commission, DataStream

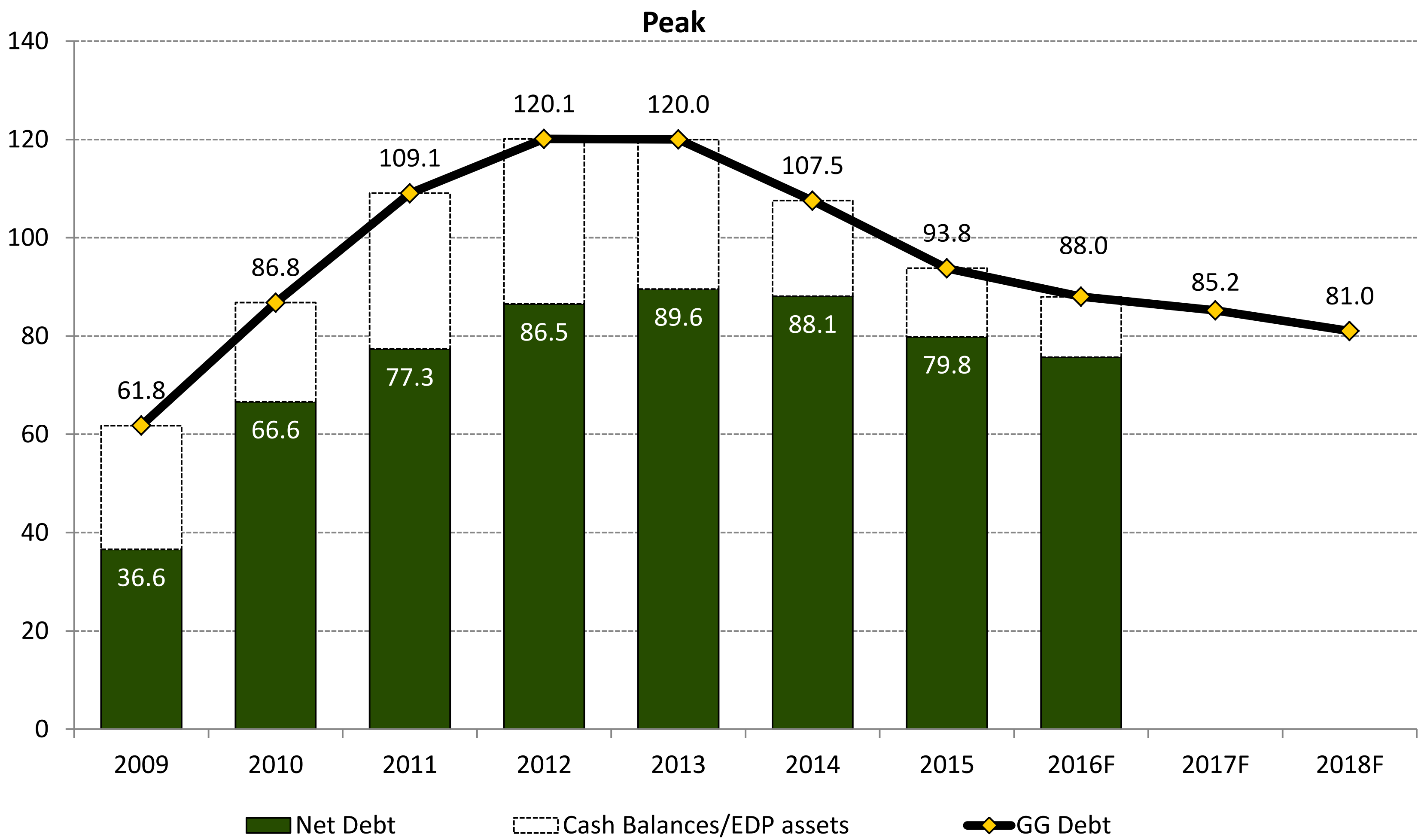
Note: All black markers are 2009 starting points

Average interest on total Government close to 3%; so interest rate-growth maths (i-g) in Ireland's favour



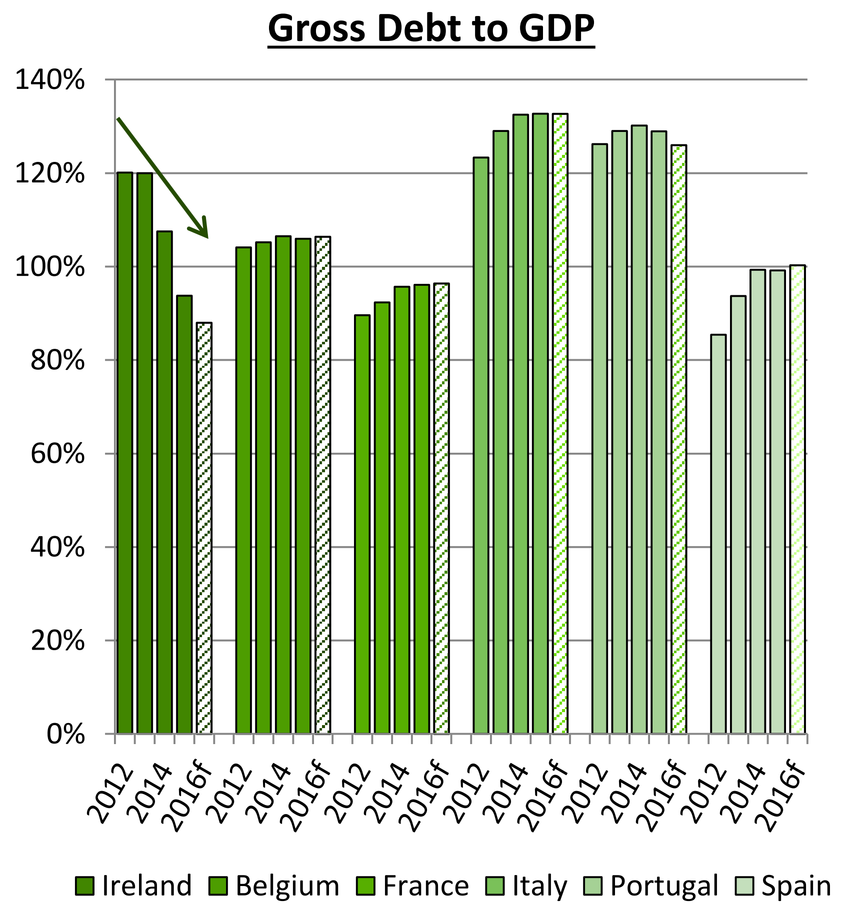
Source: Department of Finance; DataStream

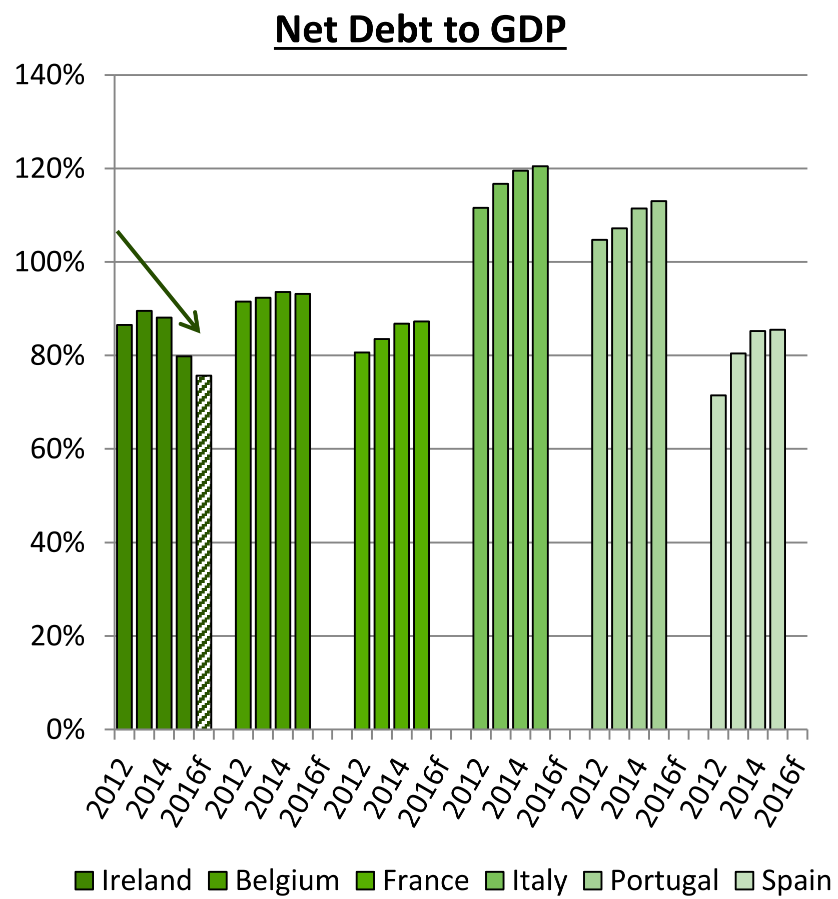
Gross Government debt fell to 93.8% of GDP by the end of 2015



Source: CSO; Department of Finance

Gross & net debt ratios (% GDP) below that of Belgium & France – our closest bond market counterparts





Net General Government Debt = Gross General Government Debt - EDP Assets

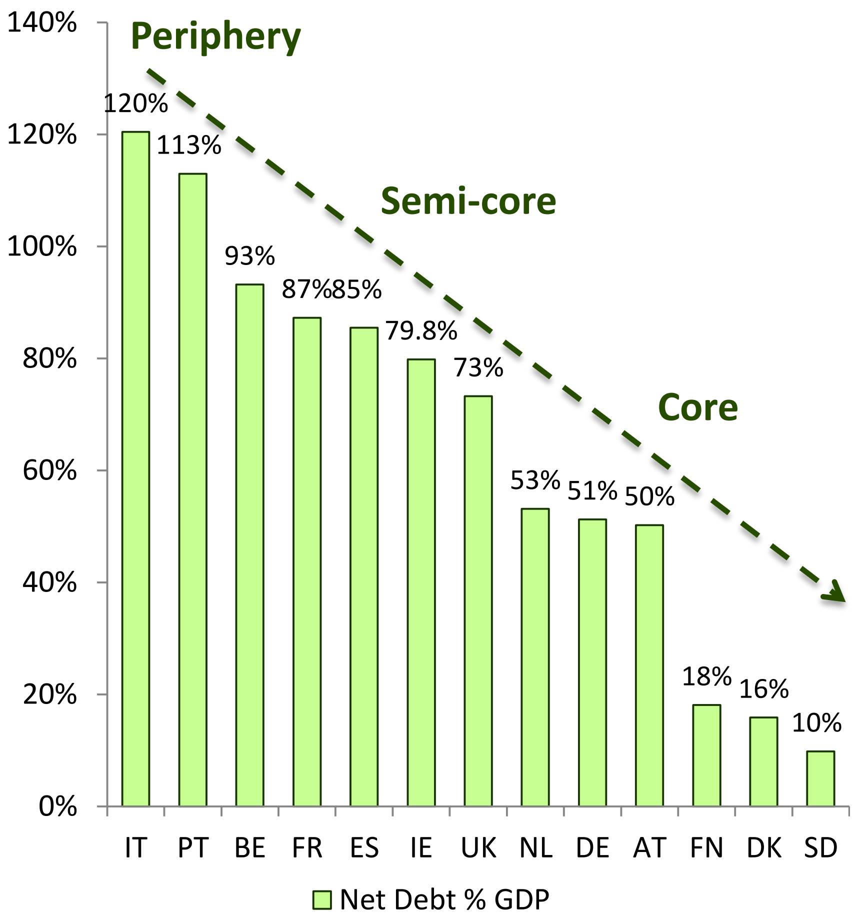
EDP Assets = Currency and Deposits + Securities other than Shares (excluding financial derivatives) + Loans

Note: EDP assets are all financial assets (excluding equities) held by general government

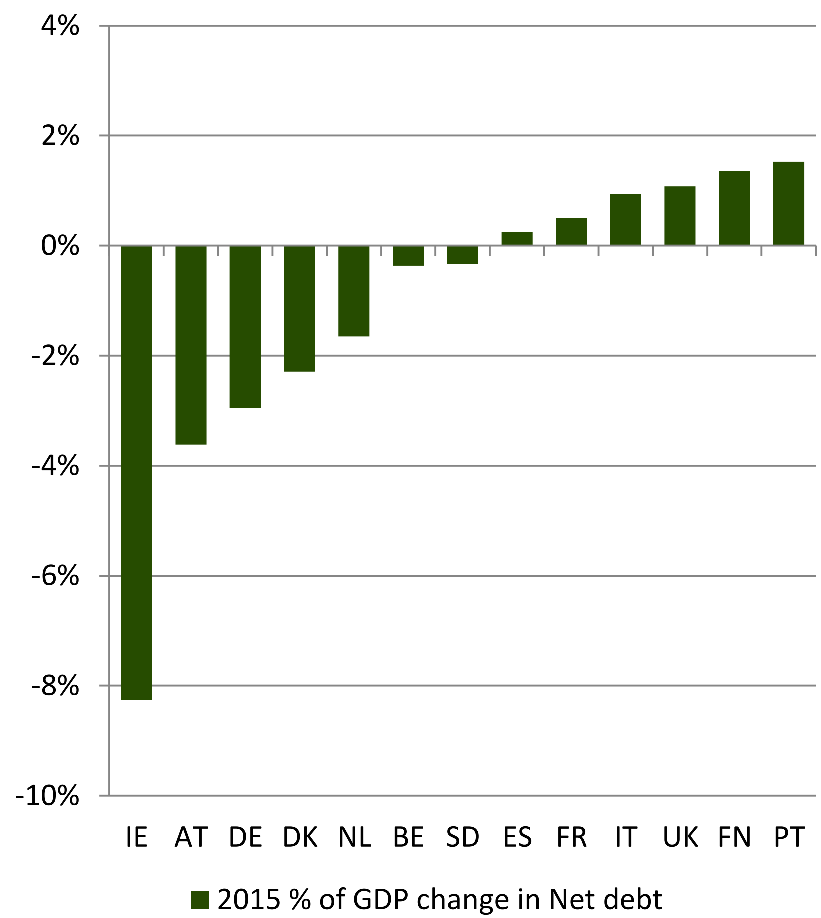
Source: CSO, Eurostat, NTMA analysis

GDP performance fuelled strong fall in net debt; best in 2015 performance pushes Ireland firmly in semi-core

Ireland net debt ratio places it in "semi-core"...

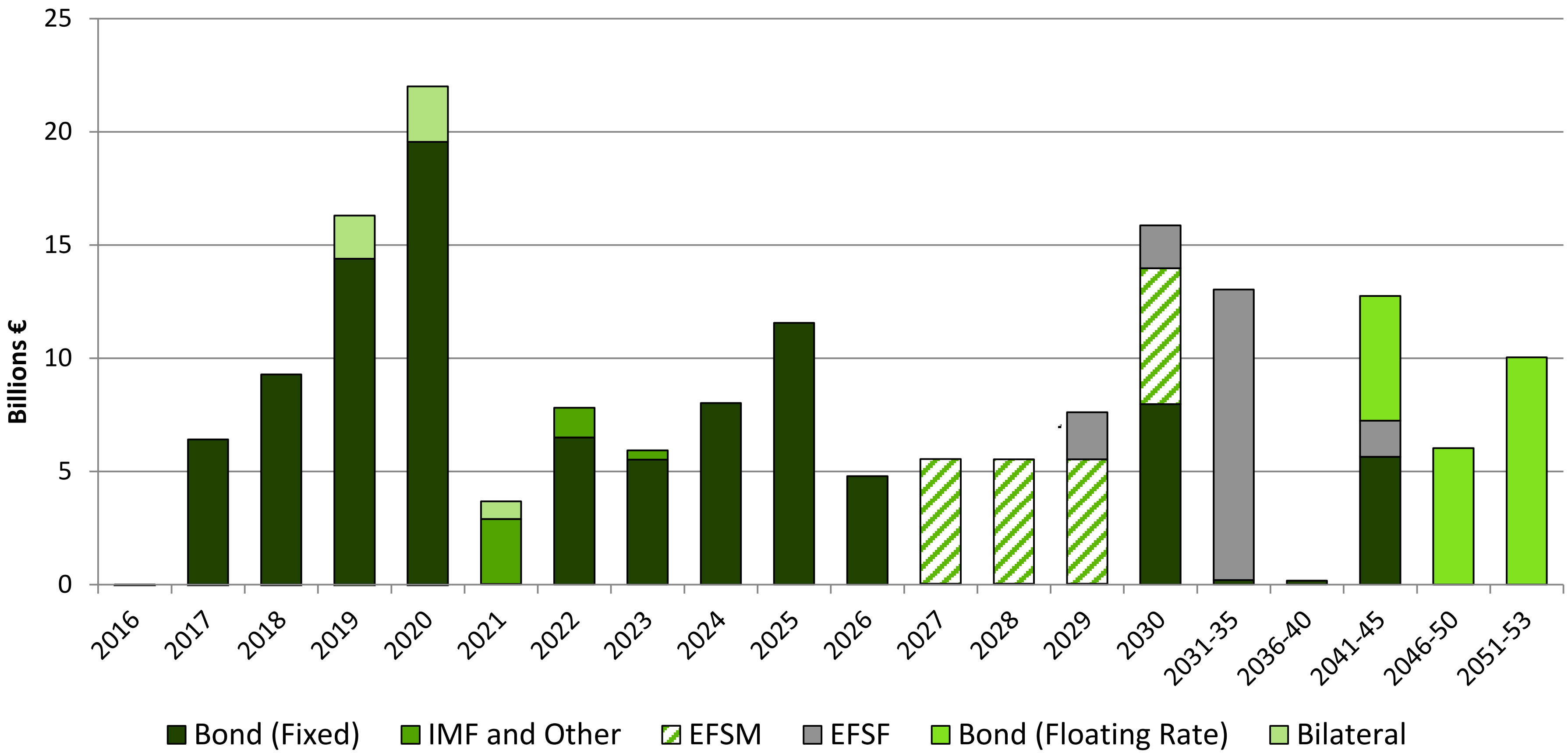


...after large improvement in 2015



Sources: Eurostat, NTMA calculations

Improved maturity profile in recent years

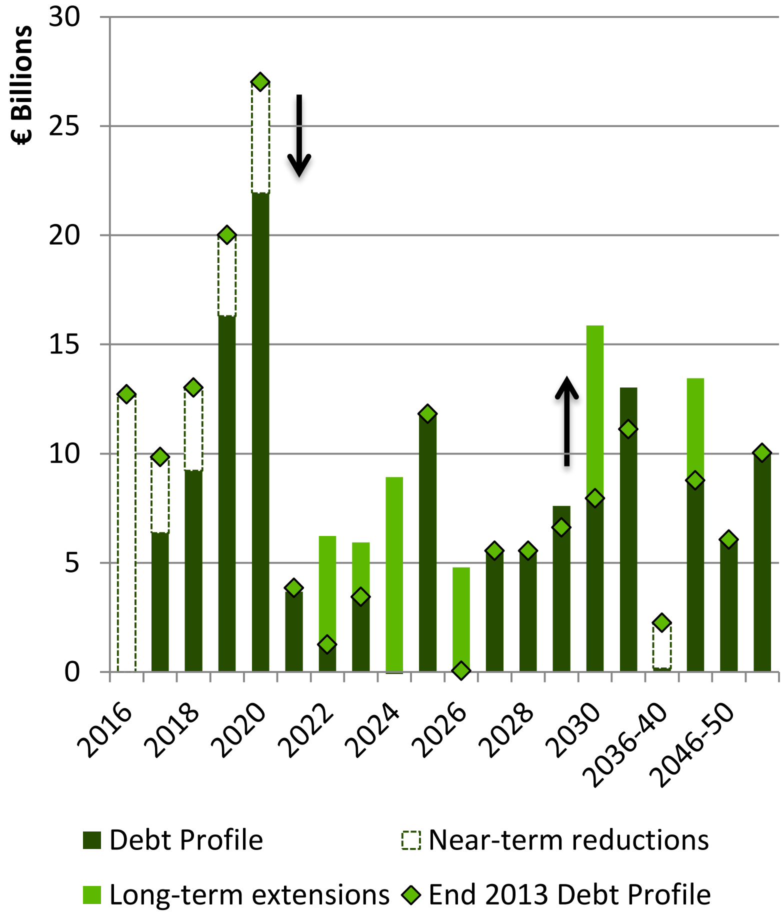


Source: NTMA

Note: EFSM loans are subject to a 7-year extension that will bring their weighted-average maturity from 12.5 years to 19.5 years. It is not expected that Ireland will refinance any of its EFSM loans before 2027. As such we have placed the EFSM loan maturity dates in the 2027-31 range although these may be subject to change.

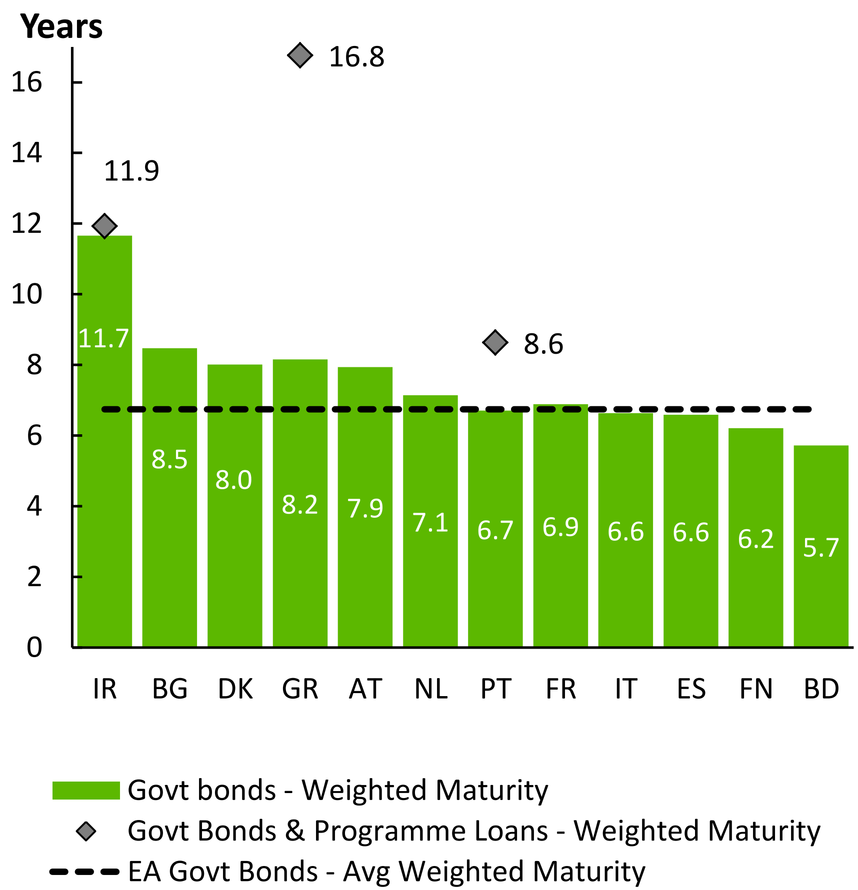
2016-2020 maturity profile improved significantly in recent years

Various operations in last two years have led to an extension of maturity…



Source: NTMA

… with Ireland comparing favourably to other European countries



Source: ECB, NTMA calculations; May 2016 figures

40% of Ireland's government debt has maturity over 10 years

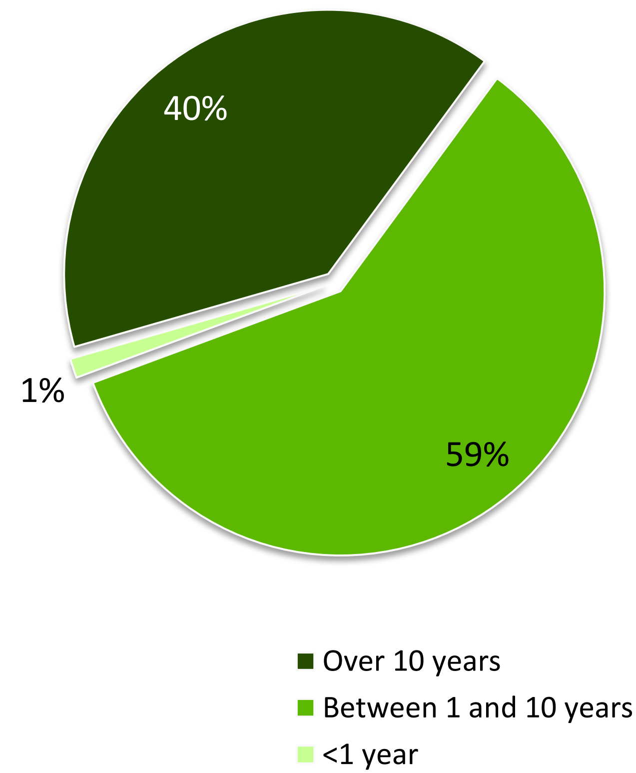
General Government Debt breakdown

	% share	€bn
Retail	10.3%	20.7
Bonds		
Short-term*	0.6%	1.2
Long-term	61.8%	124.4
Loans		
Short-term*	0.5%	1.1
Long-term	26.8%	53.9

*Short-term definition : Bonds issued with a maturity of less than 1 year

Source: CSO (Q4 2015 data), NTMA

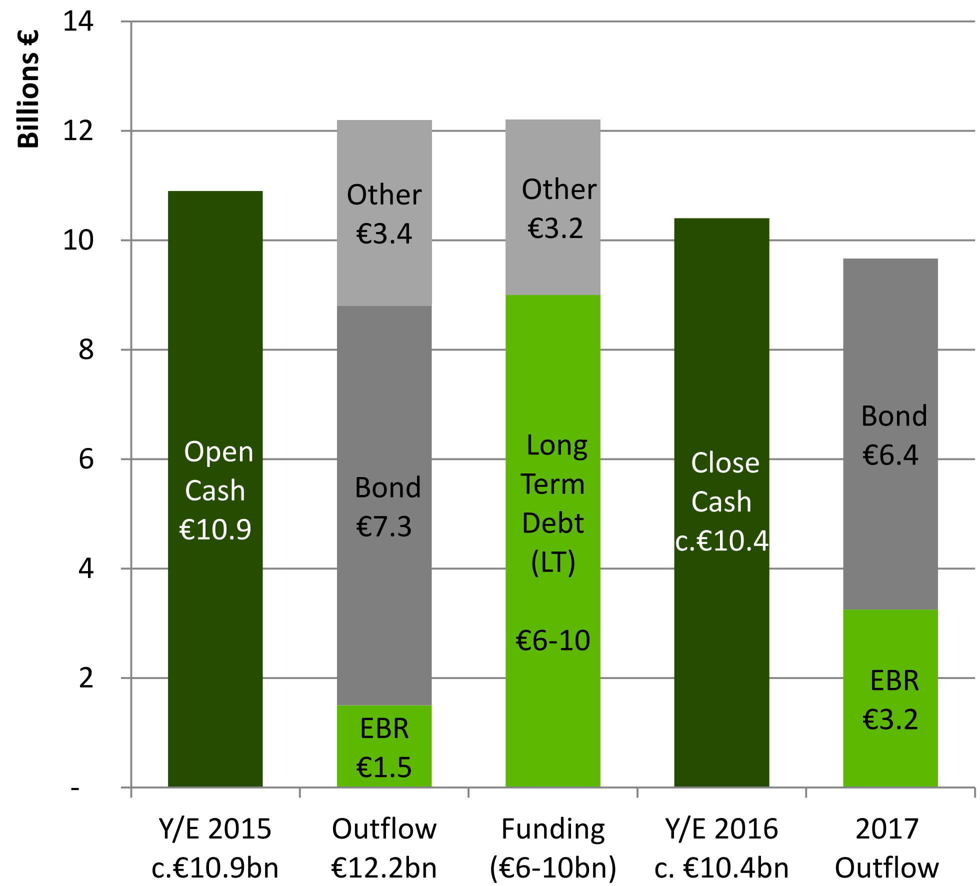
Ireland's maturity profile



Source: NTMA (May 2016)

NTMA has been funding approximately 12 months in advance; Less issuance needed in 2016

- With only two major redemptions in 2016/17 issuance is lower in 2016 than in recent years.
- Our next bond redemption will be in October 2017 - €6.4bn.
- NTMA expected to issue €6-10bn worth of long term bonds in 2016. €5.5bn has already been issued.
- Exchequer had €10.9bn of cash and other liquid assets at end 2015.

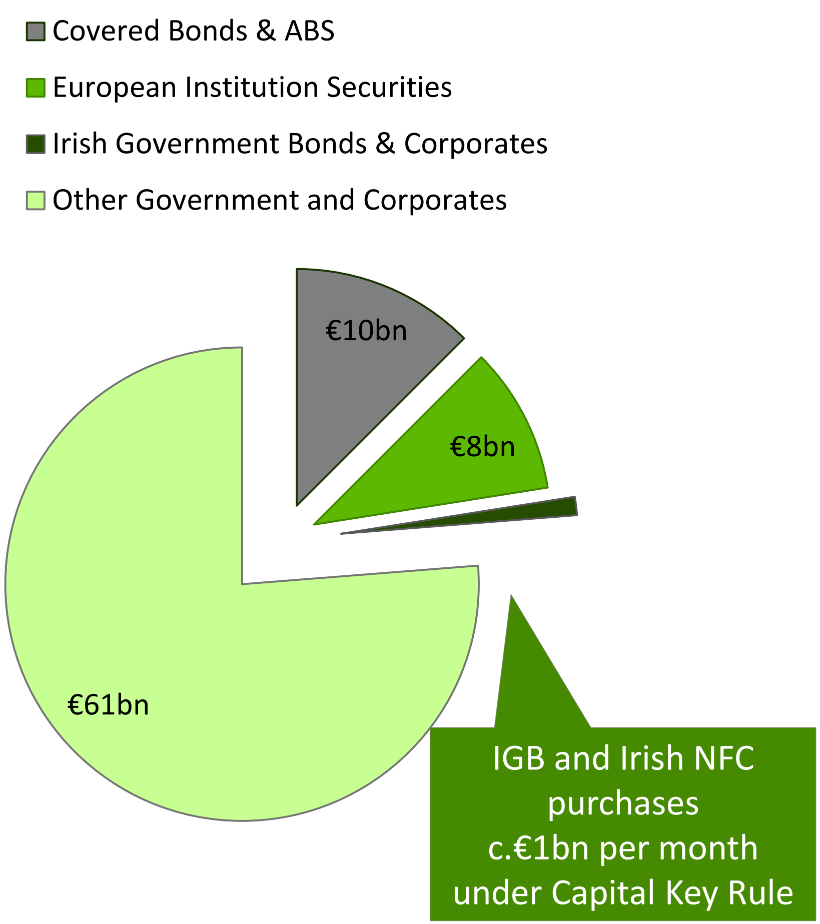


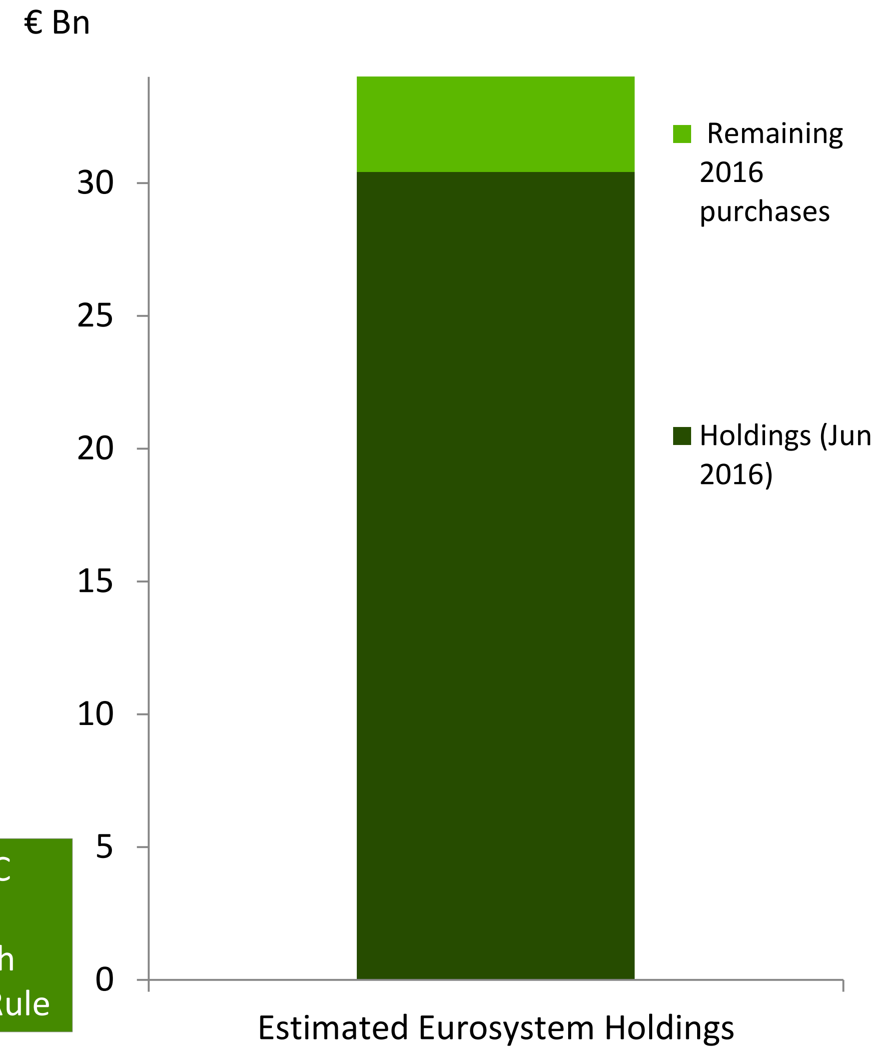
Source: NTMA

- EBR is the Exchequer Borrowing Requirement
- Cash balances excludes Housing Finance Agency (HFA) Guaranteed Notes and CSA Collateral Funding end-2015 balances . Total Cash and Other Financial Assets at end-2015 were €13.6 billion.
- Other outflows includes contingencies, including for potential bond purchases. Other sources Includes short-term paper, net State Savings (Retail) and other funding.

Central Bank of Ireland set to purchase up to c.€1bn worth of IGBs per month under ECB's expanded QE

Estimated Composition of ECB's QE €80 billion/month programme

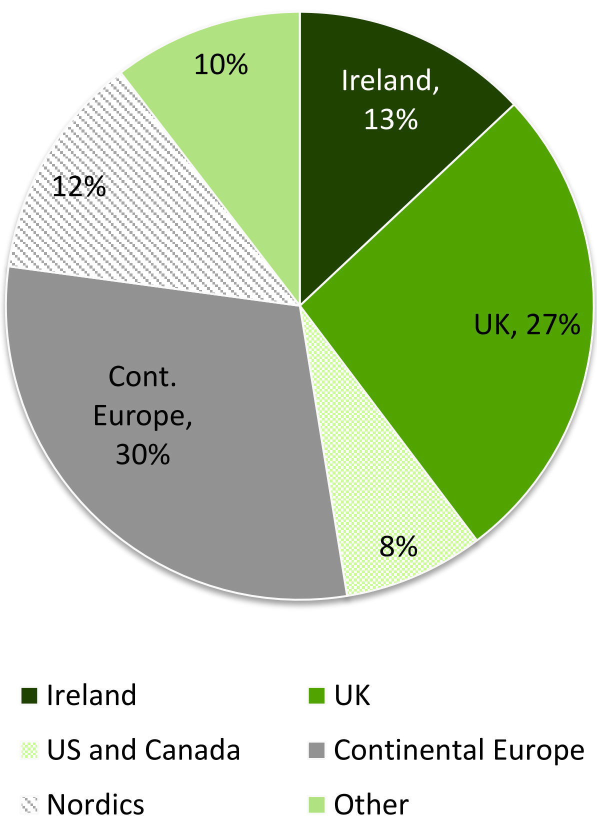




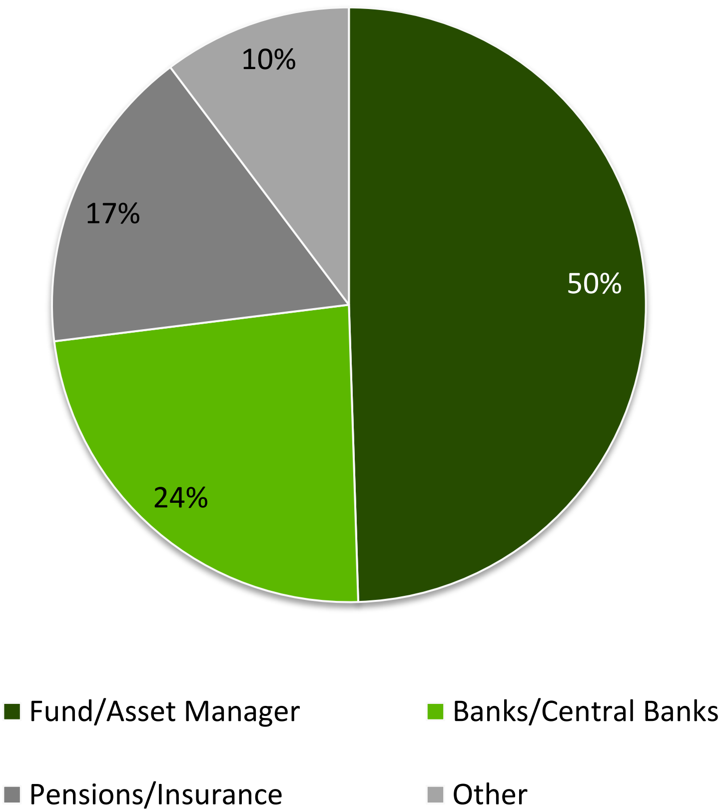
Source: NTMA Analysis; [ECB]

Investor base for Irish government debt is wide and varied

Country breakdown – Average over last 7 syndications



Investor breakdown – Average over last 7 syndications



Source: NTMA

Greater geographic balance in holdings of Irish Government Bonds (IGBs)

€ million

End quarter	Dec 2013	Dec 2014	Dec 2015	Mar 2016
1. Resident	51,747	50,805	50,846	51,404
(as % of total)	(46.6%)	(43.7%)	(40.6%)	(40.4%)
– Credit Institutions and Central Bank*	49,240	45,875	46,949	47,658
– General Government	2,153	1,632	787	772
– Non-bank financial	-	2,870	2,773	2,638
– Households (and NFCs)	354	428	337	336
2. Rest of world	59,260	65,534	74,240	75,894
(as % of total)	(53.4%)	(56.3%)	(59.4%)	(59.6%)
Total MLT debt	**111,007**	**116,339**	**125,086**	**127,298**

Source: CBI

* In March 2013 resident holdings increased significantly thanks to the IBRC Promissory Note repayment (non-cash settlement) which resulted in €25.034bn of long-dated Government bonds being issued to the Central Bank of Ireland on liquidation of IBRC. The CBI also took €3bn of 2025 IGBs formerly held by IBRC.

Breakdown of Ireland’s General Government debt

€ million	2011	2012	2013	2014	2015
Currency and deposits (mainly retail debt)	58,386	62,092	31,356	20,918	20,704
Securities other than shares, exc. financial derivatives	94,013	87,297	112,665	119,078	125,565
- Short-term (T-Bills, CP etc)	3,777	2,535	2,389	3,760	1,182
- Long-term (MLT bonds)	**90,236**	**84,762**	**110,276**	**115,318**	**124,383**
Loans	37,308	60,597	71,277	63,300	54,996
- Short-term	558	1,884	1,441	1,294	1,054
- Long-term (official funding and prom notes 2009-12)	36,750	58,718	69,836	62,006	53,942
General Government Debt	**189,707**	**209,986**	**215,298**	**203,295**	**201,266**
EDP debt instrument assets	*55,170*	*58,718*	*54,597*	*36,739*	*29,901*
Net Government debt	**134,537**	**151,268**	**160,701**	**166,556**	**171,365**

Source: CSO (end 2015)

SECTION 3: BREXIT

Brexit is likely net negative for Ireland but opportunities may arise

Negative for the Irish economy: each 1% drop in UK GDP may lower Ireland's GDP by between 0.3-0.8%

Cons

- Trade
  - Lower demand from UK/ tariffs
  - FX: £ lower v € (1% annual ave. move = 0.5% hit to Irish exports to the UK)
  - British market as test-bed less feasible
- Higher import prices possible in long-term: tariffs may outweigh FX benefit
- EU political situation may deteriorate
- Banking sector likely to suffer because of its UK operations
- Political economy (border?, corporate tax ally though still have others in EU)
- UK-based cash house buyers gone?

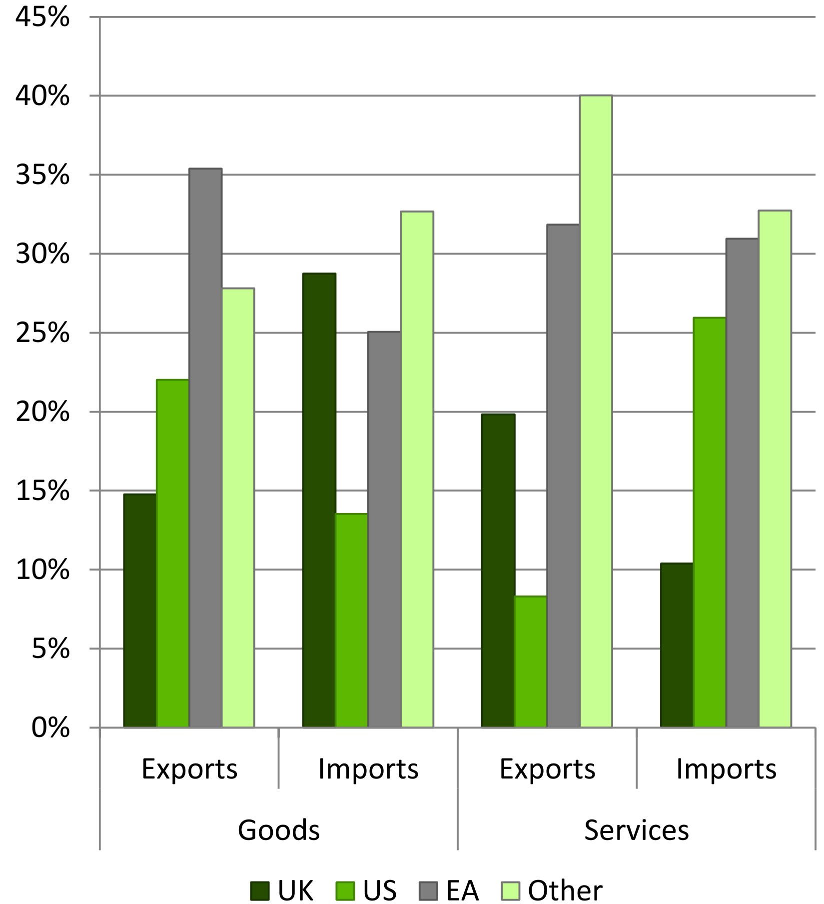
Pros

- Increased FDI, as multinationals avoid turmoil
  - Financial services (passporting)
  - Other multinationals - especially IT and business services
- Commercial property occupancy could rise; there may also be an influx of well paid workers
- ECB and fiscal response in Europe
- Some trade offsets
  - Irish companies may steal EU market share from British ones

Trade channel is likely to be negatively impacted

- **Irish/UK trade linkages will suffer following Brexit**
  - The UK is the second largest single-country export destination for Ireland's goods and the largest for its services
  - At the same time, Ireland imports 30% of its goods from the UK. Consumer goods, capital equipment and inputs into the export process will become cheaper thanks to FX.
- **There is significant employment related to Ireland's trade with the UK**
  - The UK might only account for 16-17% of Ireland's total exports, but Ireland is more dependent than that, when you consider the employment related to those exports
- **SMEs (particularly agri-food and tourism) likely to be more affected than larger companies by the introduction of tariffs and barriers to trade**

Ireland's main trading partners



Source: CSO (2014)

FDI: Ireland may benefit

- **FDI Channel – possibly positive impact**
  - Foreign firms in the UK might consider relocation following Brexit. This may be especially pertinent for firms who use the UK as a base for its EU operations.
  - Ireland could be a beneficiary from this displaced FDI. The chief areas of interest are financial services, business services and IT/ new media. Dublin is likely to compete with Frankfurt, Paris and Amsterdam for financial services, if the UK (City of London) loses EU passporting rights on exit. There may be opportunities too in the clearing of trades in €.
  - Ireland's FDI opportunity will depend on the outcome of post-exit trade negotiations.

- **Energy Market – likely negative**
  - Ireland's energy market is heavily reliant on the UK. 90% of Ireland's energy imports are sourced from the UK. A tariff might apply on this trade post-Brexit.
  - Differences in regulatory environments in the UK versus the EU may see Ireland stuck trying to serve two sets of regulations. This could mean higher costs in the medium-term.

Migration/labour flows might be affected by Brexit

- In the past, large migratory flows from Ireland to the UK have occurred. This has helped normalize the Irish labour market in times of stress.
- For example, approximately 60,000 people moved from Ireland to the UK between 2011-13.
- If the UK labour market was closed off to Irish emigrants following Brexit, the likely result is upward pressure on unemployment rates and downward pressure on wage rates.
- The ESRI (Irish economic think-tank) estimated the effect of an inflow of 60,000 labour force participants in Ireland i.e. 'non-outflow' due to migration restrictions, shows that unemployment would rise by 0.4% and wages in Ireland would fall by almost 4%.

ESRI simulation in which 60,000 person are added to Irish labour force

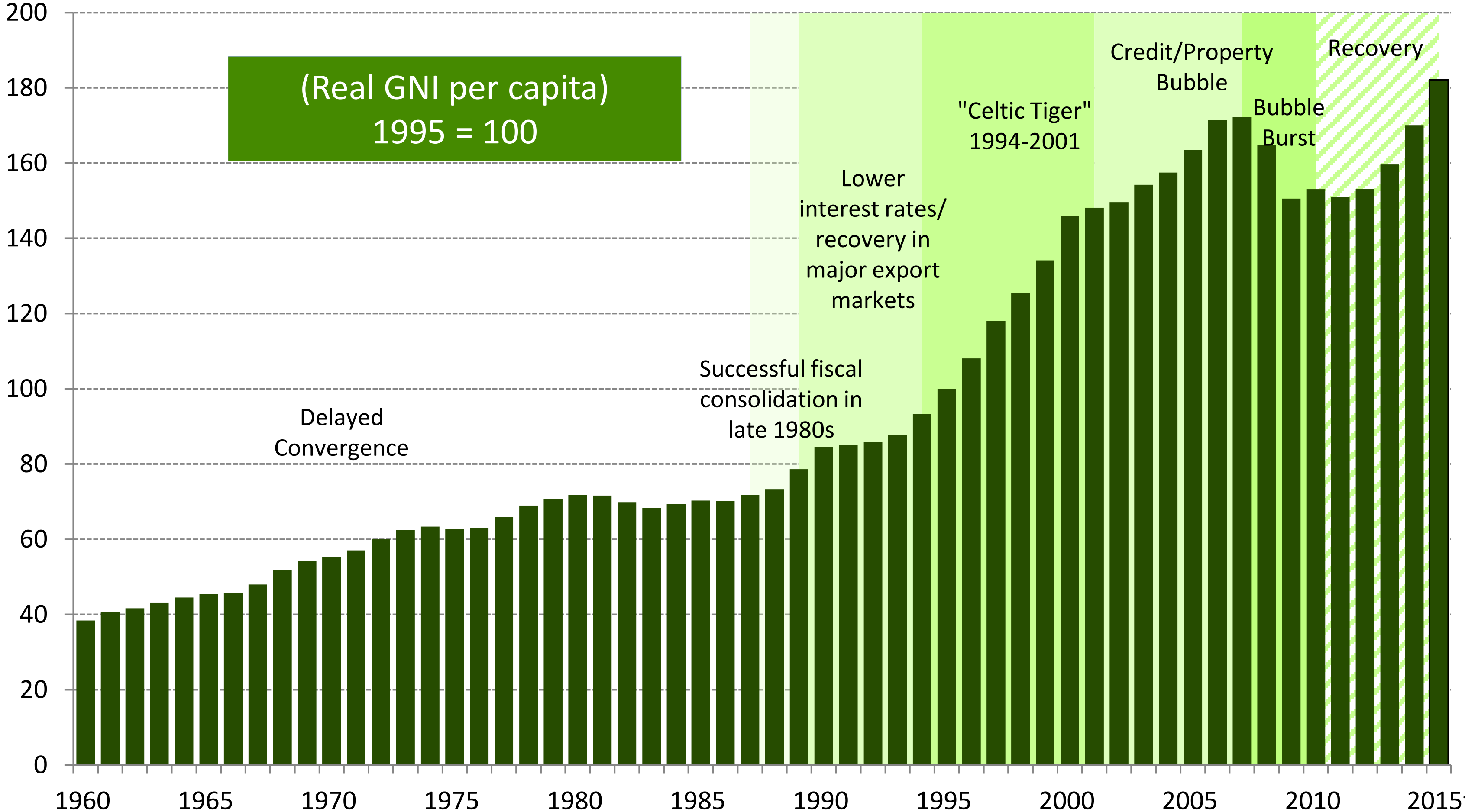
	Low-skilled unemployment adjustment	Low-skilled wages adjustment
	% Change	
Average wage	-3.9	-3.7
High-skilled	-5.0	-4.8
Low-skilled	0.0	0.8
Unemployment rate	-0.4	0.0

Source: ESRI Brexit Report

SECTION 4: LONG TERM FUNDAMENTALS

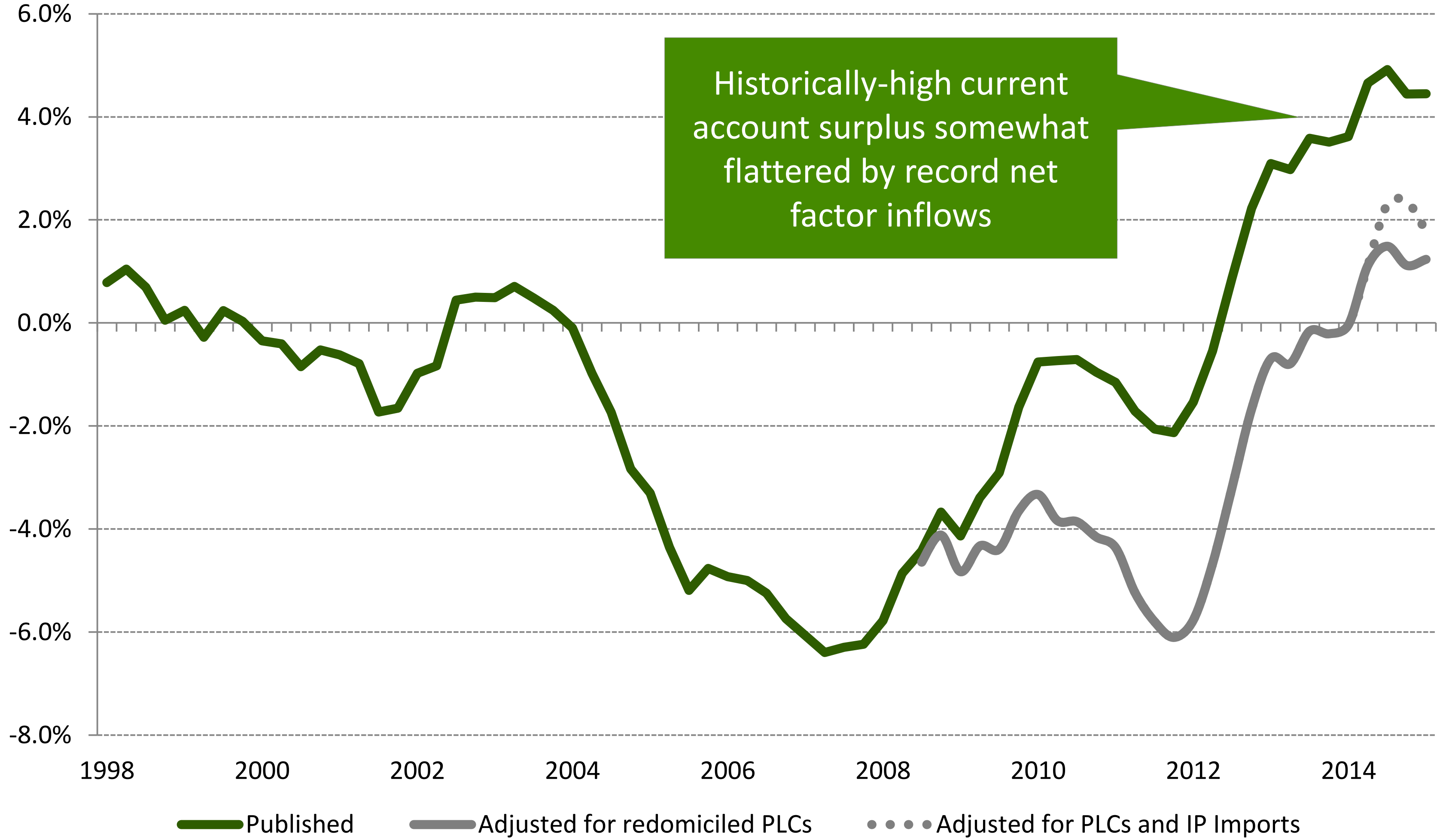
Fundamentals in place but retaining competitiveness is crucial

Much rebalancing has taken place; 2007 peak in GNI per capita surpassed in 2015



Source: CSO

Ireland's current account in surplus but affected by IP imports and re-domiciled PLCs

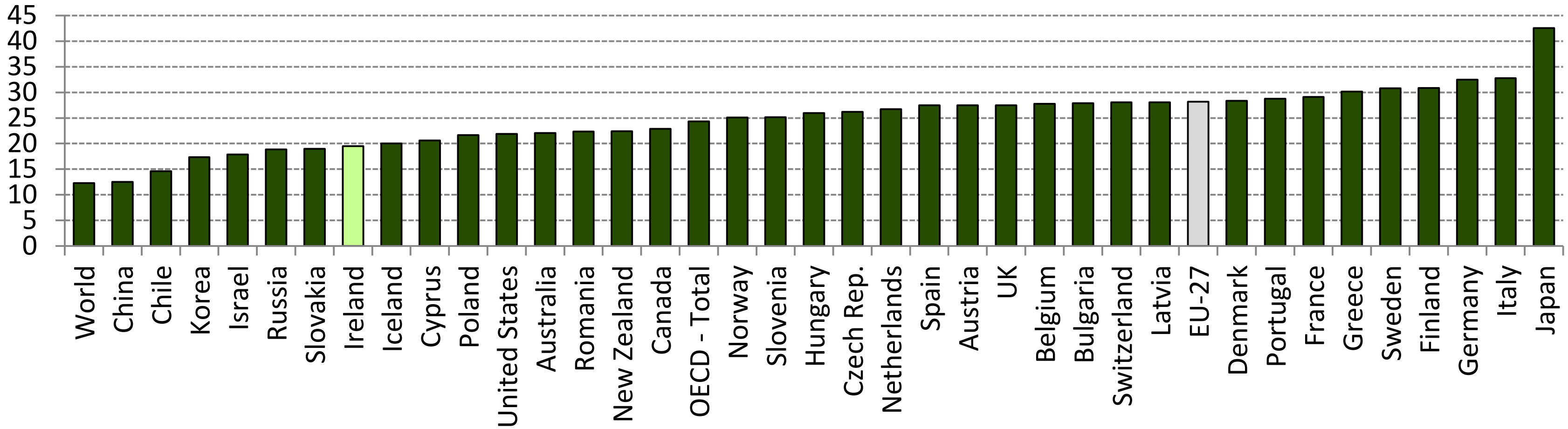


Source: CSO

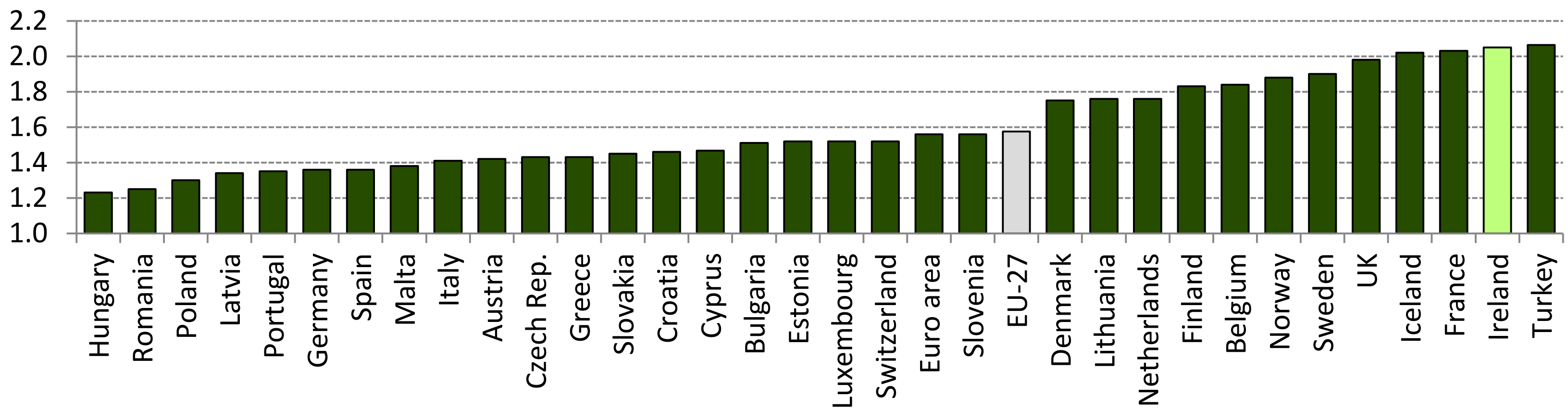
* For estimates of the undistributed profits of redomiciled PLCs see Fitzgerald, J. (2013), 'The Effect of Redomiciled PLCs on GNP and the Irish Balance of Payments'

Favourable population characteristics underpin debt sustainability over longer term

Old age dependency ratio (65+ : ages 15-64) compares well against OECD countries



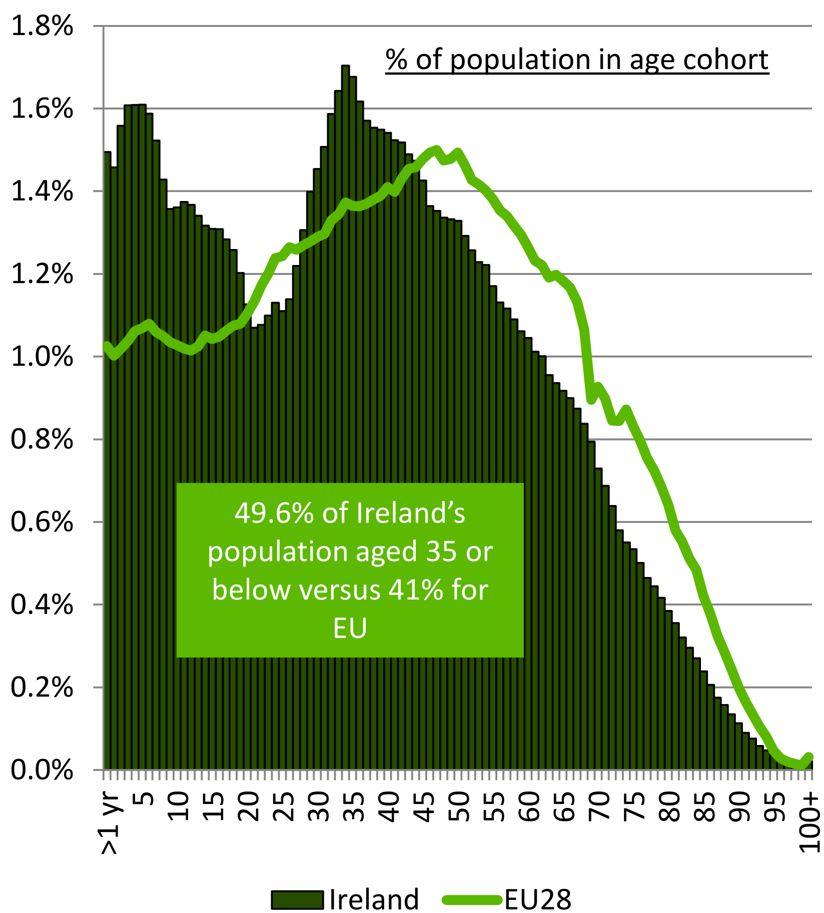
Fertility rates in Ireland are above typical international replacement rates



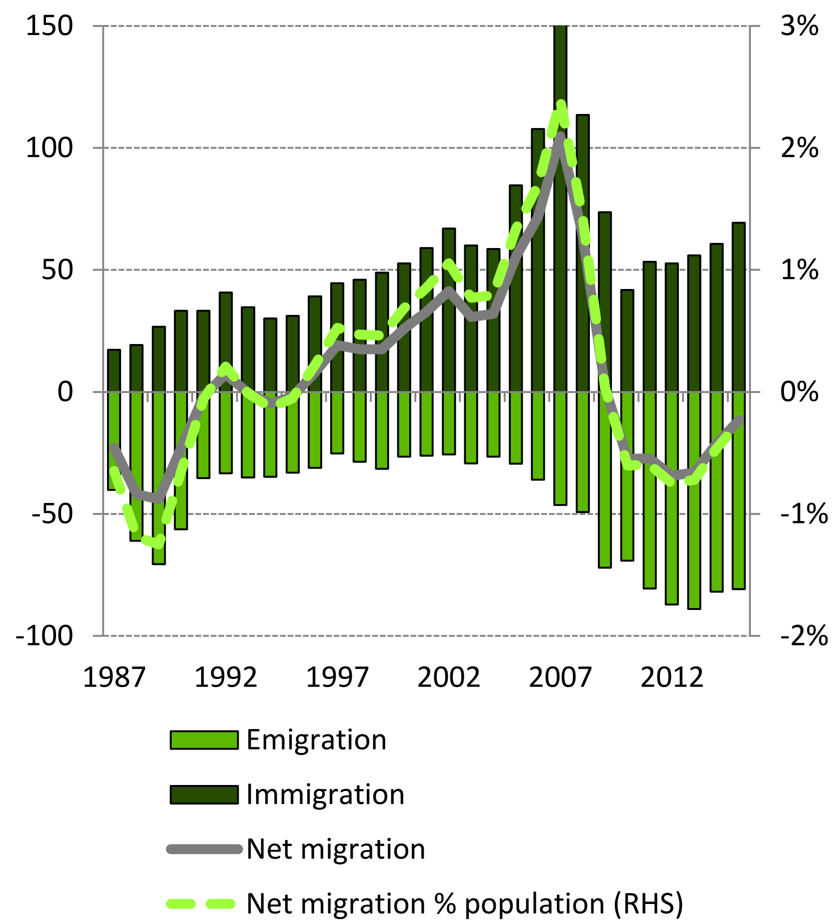
Source: World Bank WDI (2013); OECD (2014)

Ireland's population and migration data are encouraging

Ireland's population profile healthier than the EU average



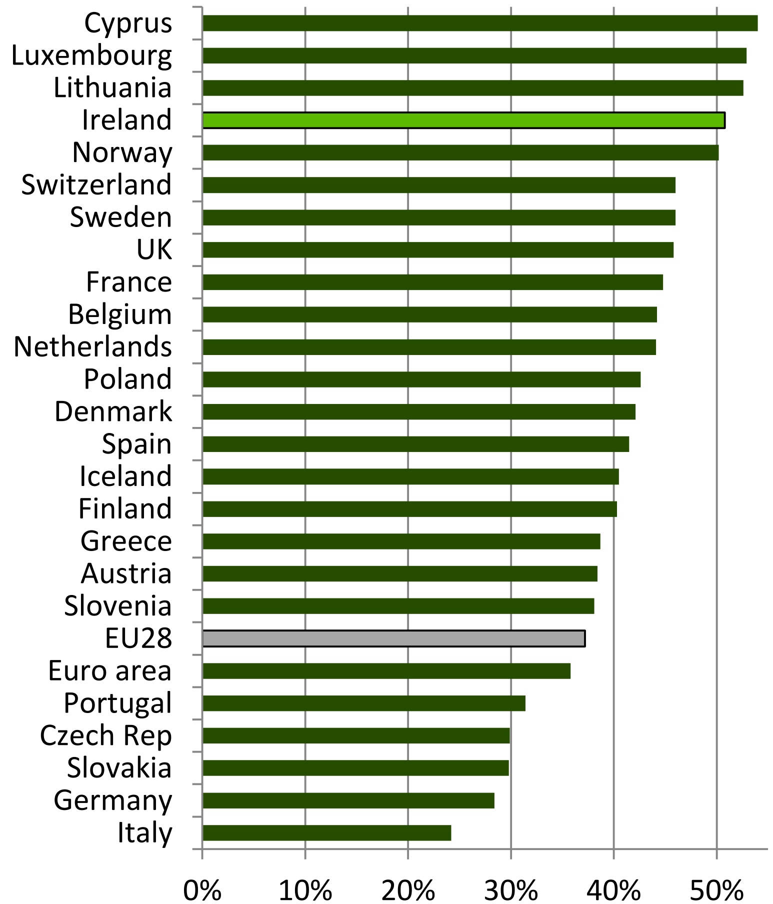
Net migration (000's) negative in recent years but improving alongside economy



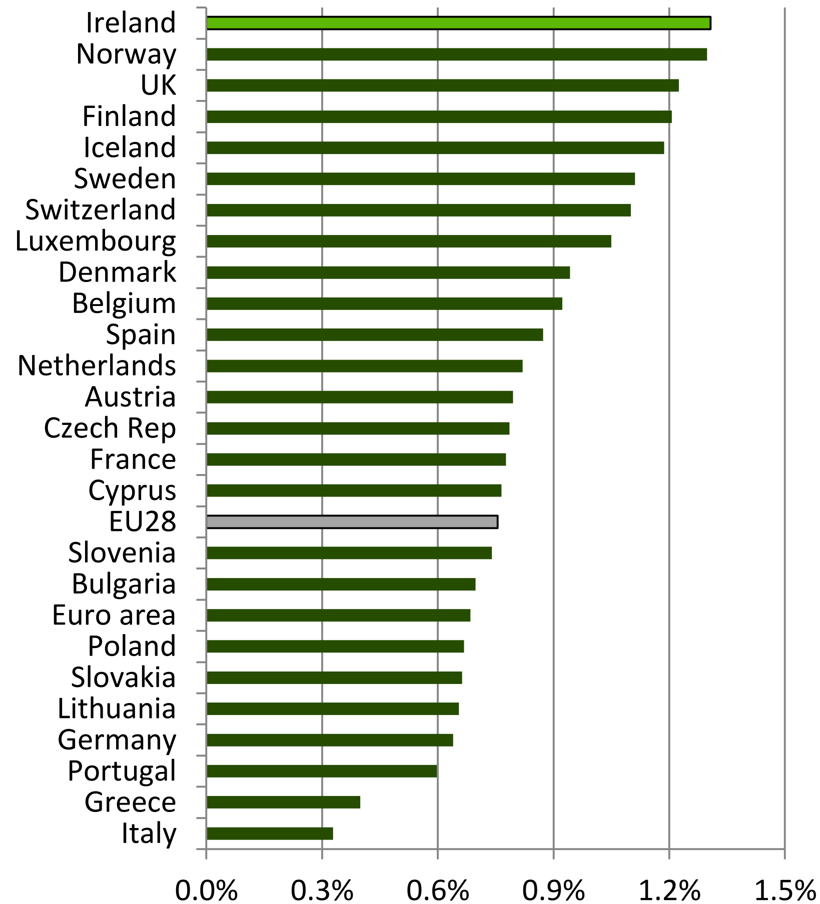
Source: Eurostat (2015); CSO

Workforce is young and educated - especially so in IT sector

Ireland has one of the largest % of 25-34 years old with a third-level degree…



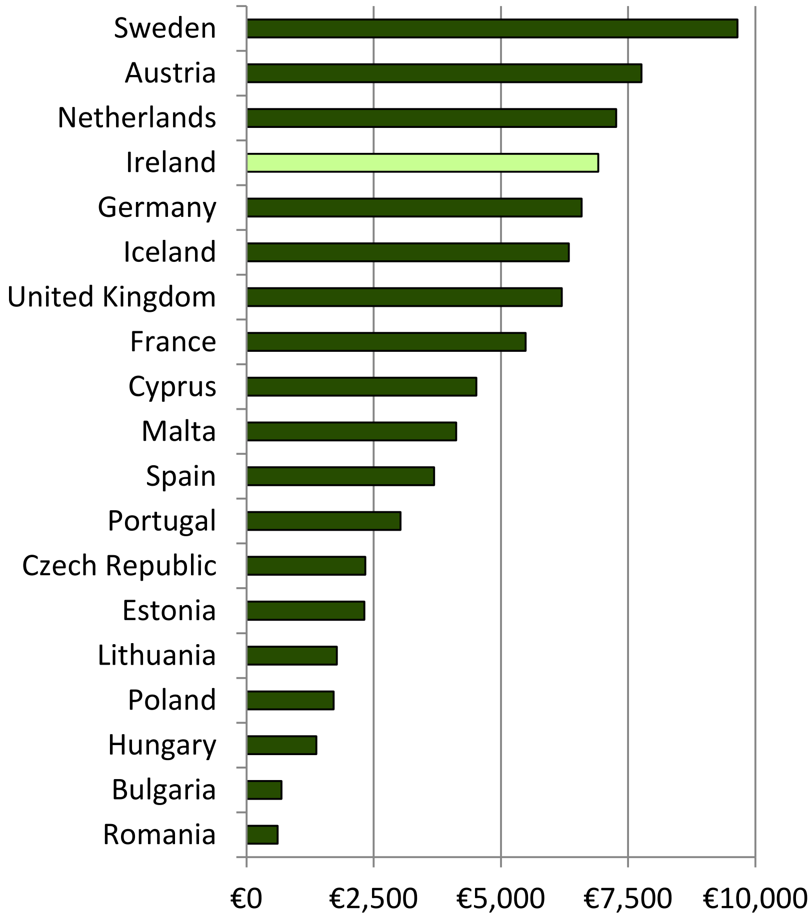
…and the highest % of population working in IT with a third-level degree



Source: Eurostat

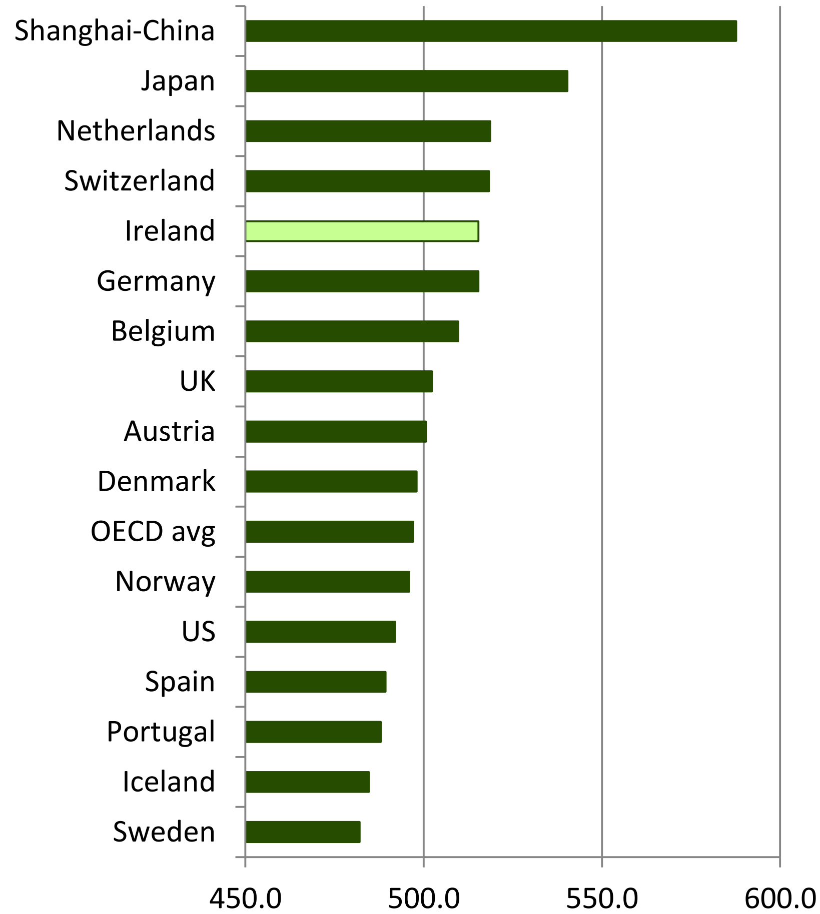
Ireland's education expenditure close to top in Europe – qualitatively competitive also

Public Education Expenditure per person aged less than 23 - Selected European Countries



Source: Eurostat (2012)

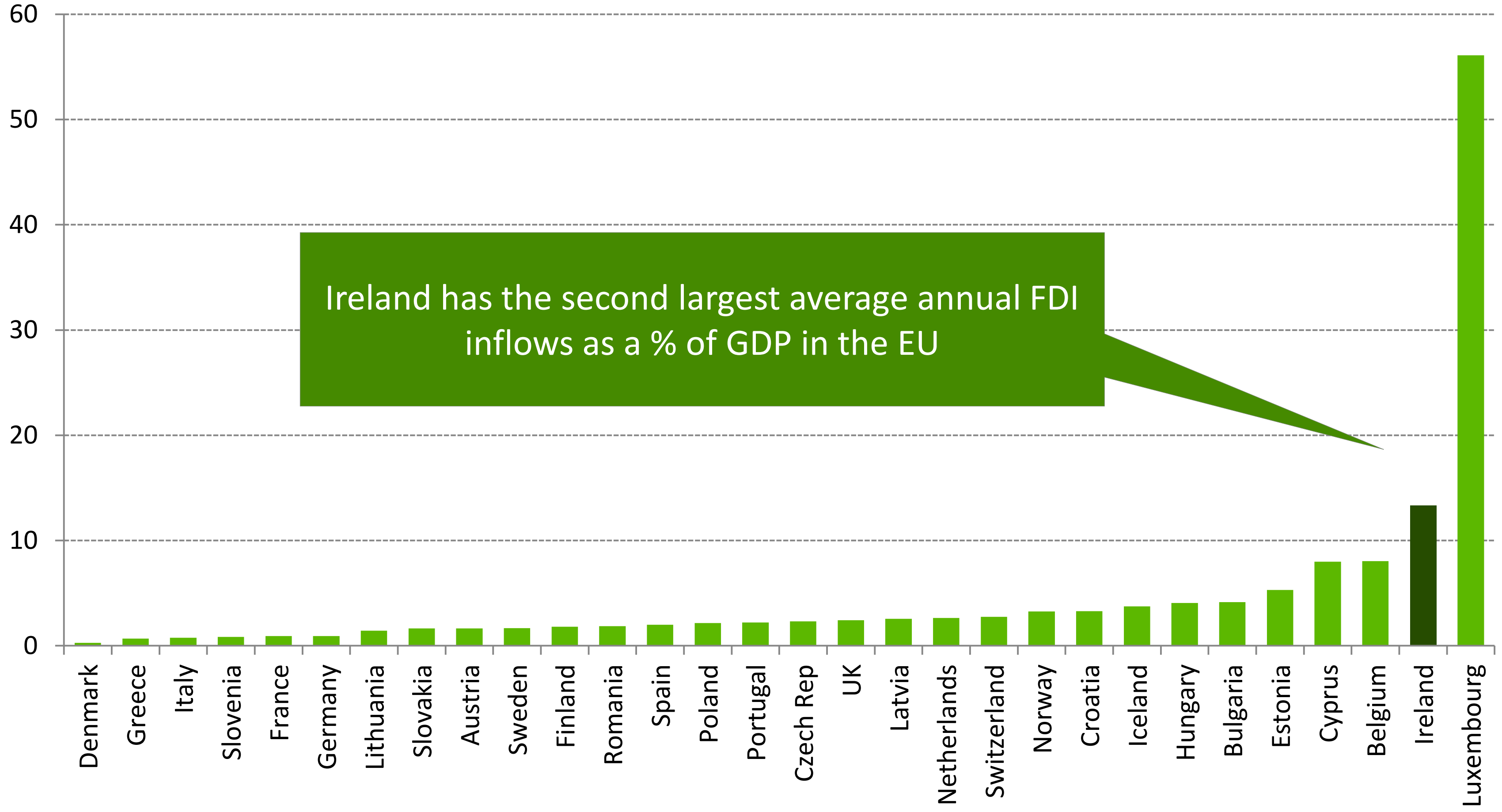
Average PISA Score across Maths, Reading and Science



Source: OECD (2012)

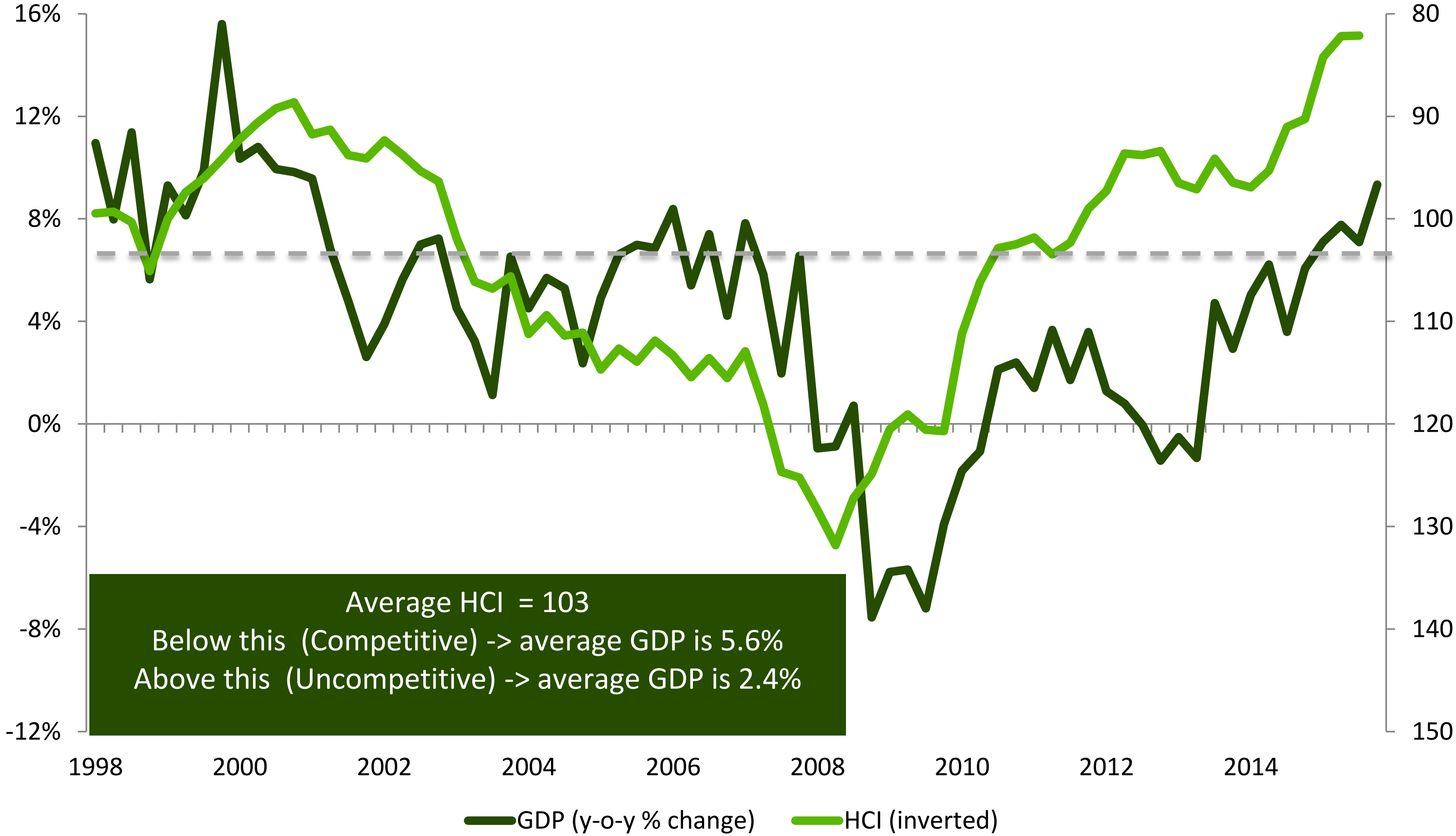
National Treasury Management Agency

Ireland continues to attract foreign investment (average FDI inflows p.a % of GDP, 2009 – 2014)



Source: [UNCTADStat]

Despite the underlying fundamentals competitiveness is crucial for Ireland's future growth



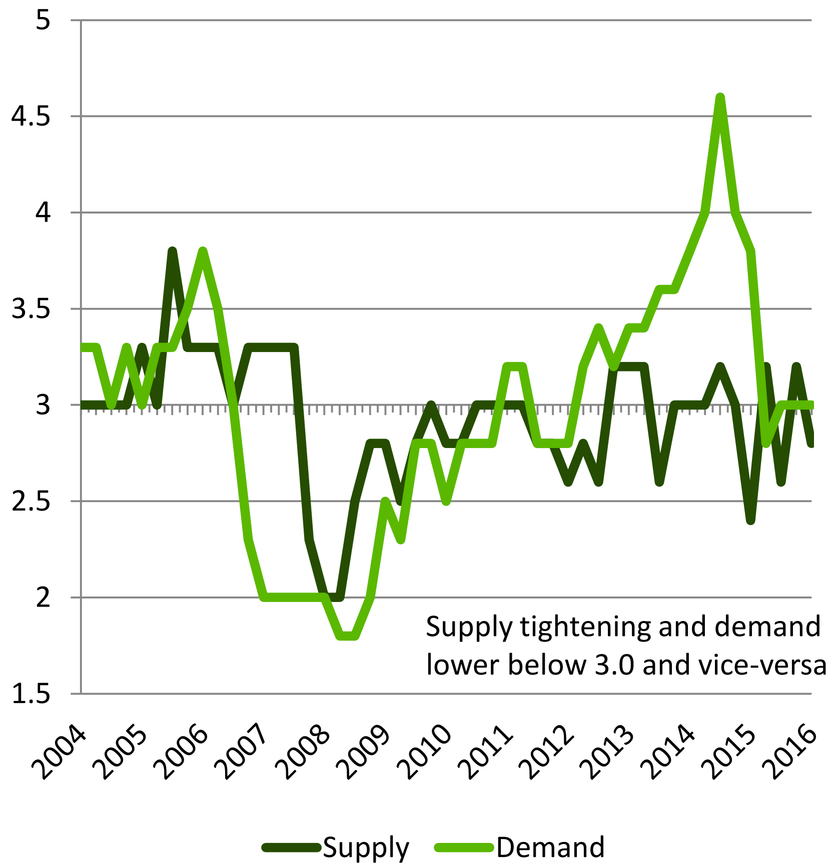
Source: [CSO](), [CBI](), NTMA analysis

SECTION 5: PROPERTY

Property prices rising thanks to lack of supply, reasonable starting valuations and strong capital inflows

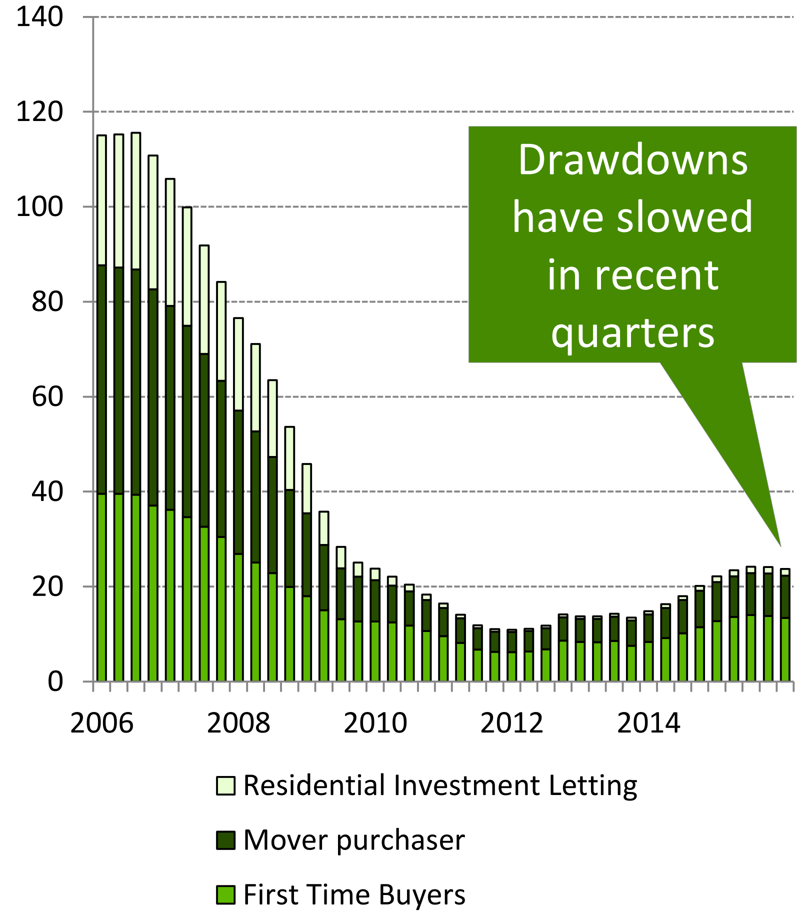
New CBI mortgage rules impacting demand

Demand and credit standards tighten following CBI rules



Source: ECB and CBI (Bank lending survey)

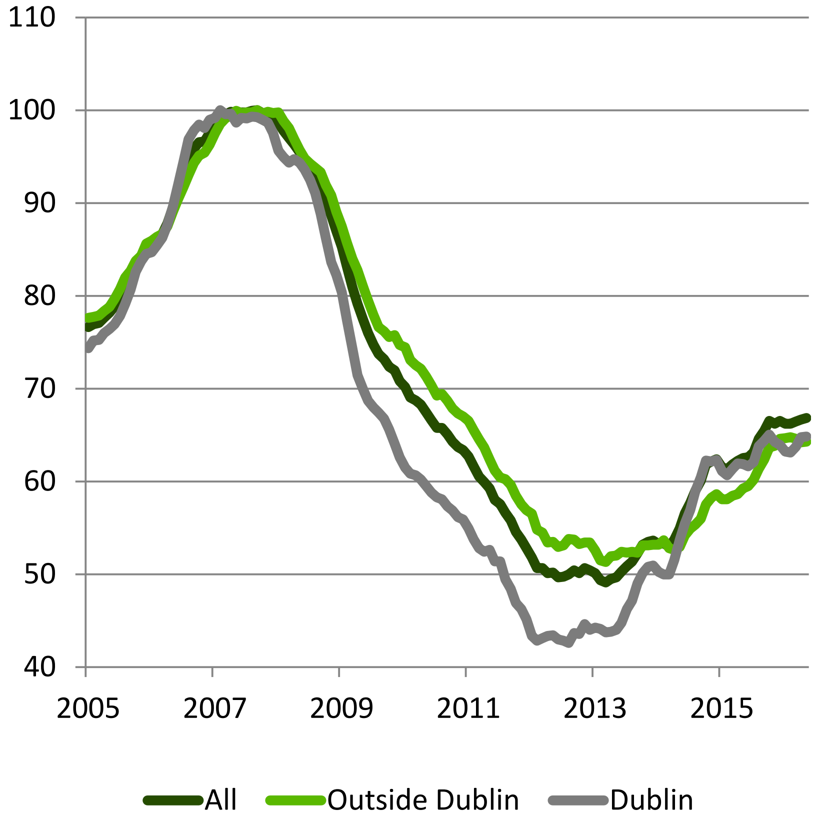
Mortgage drawdowns rise from deep trough ('000s)



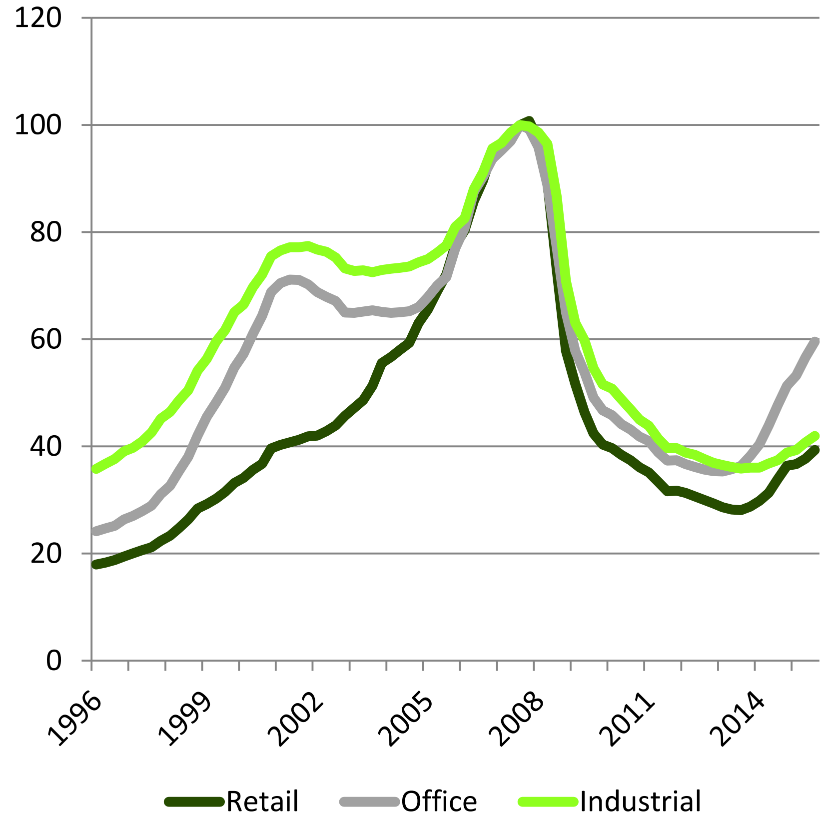
Source: BPFI

Property prices have rebounded since 2012 (peak = 100 for all indices)

House prices surge has slowed in recent months



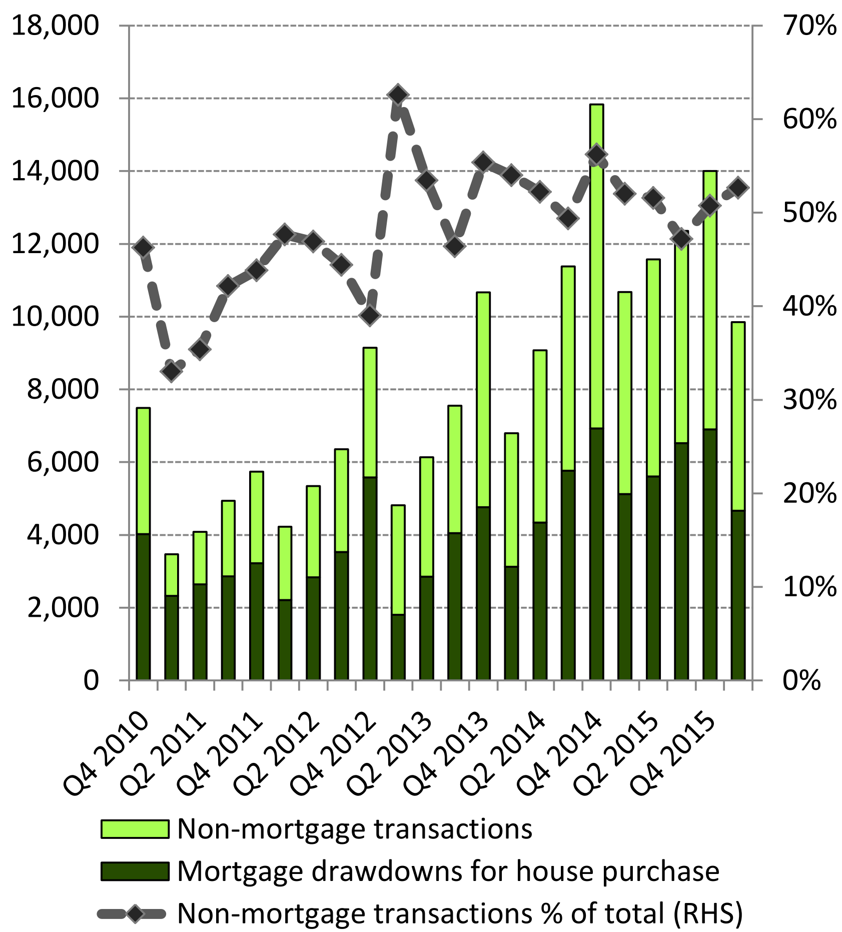
Office leads commercial property



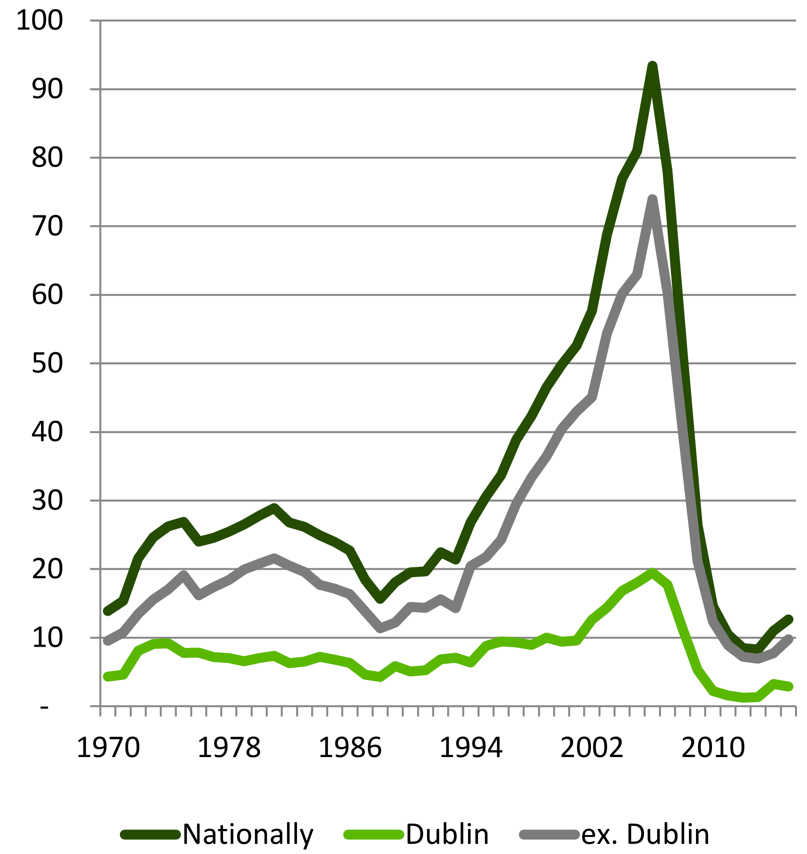
Source: CSO; IPD

Residential market continues to be boosted by non-mortgage purchasers

Non-mortgage transactions roughly 50% of all property transactions



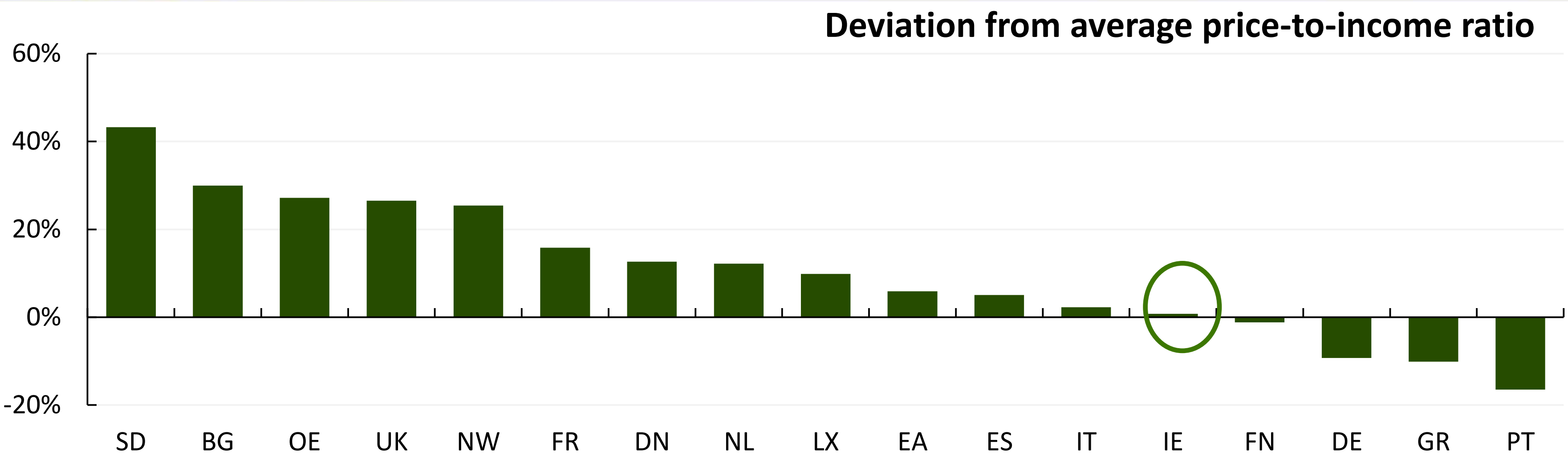
Housing Completions (000's) improving but very low historically

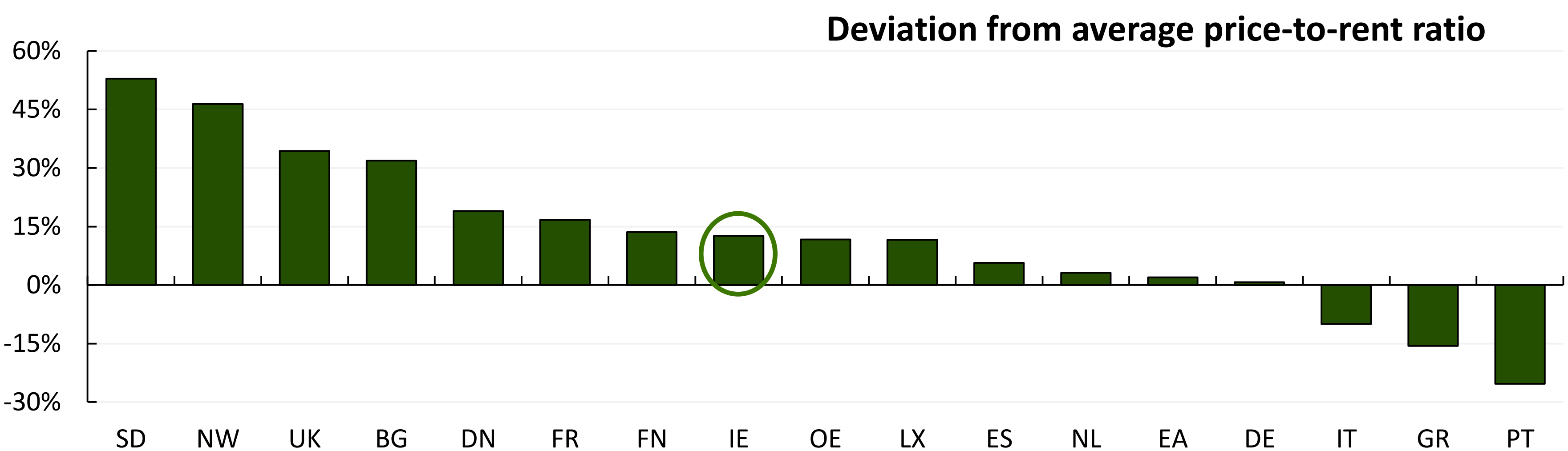


Source: BPFI; Property Services Regulatory Authority; NTMA

Note: Non-mortgage transactions are implied by difference between total transactions on property price register and BPFI mortgage data

Irish house price valuation is still attractive on income basis versus European countries



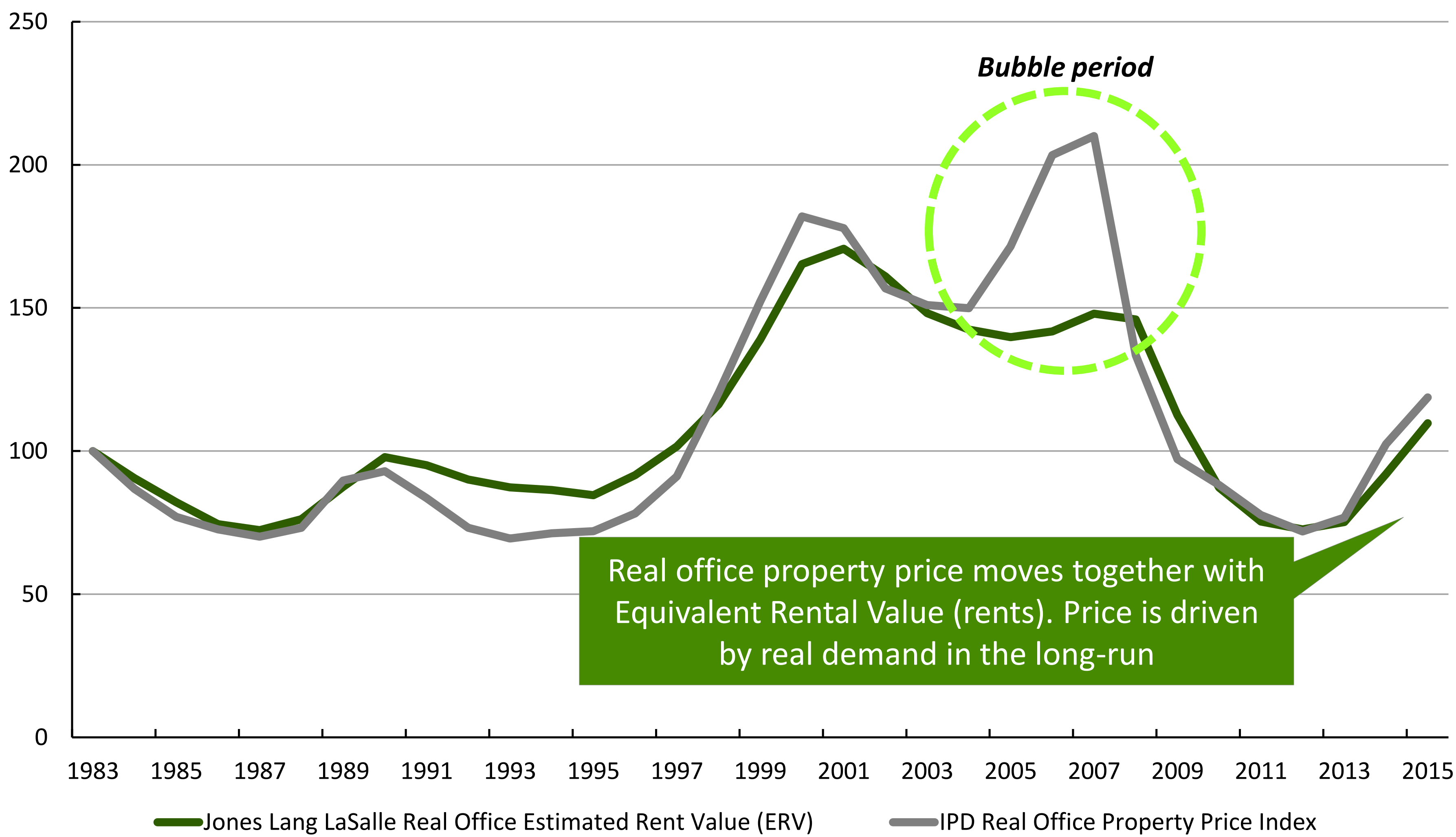


Source: OECD, NTMA Workings

Note: Measured as % over or under valuation relative to long term averages since 1980.

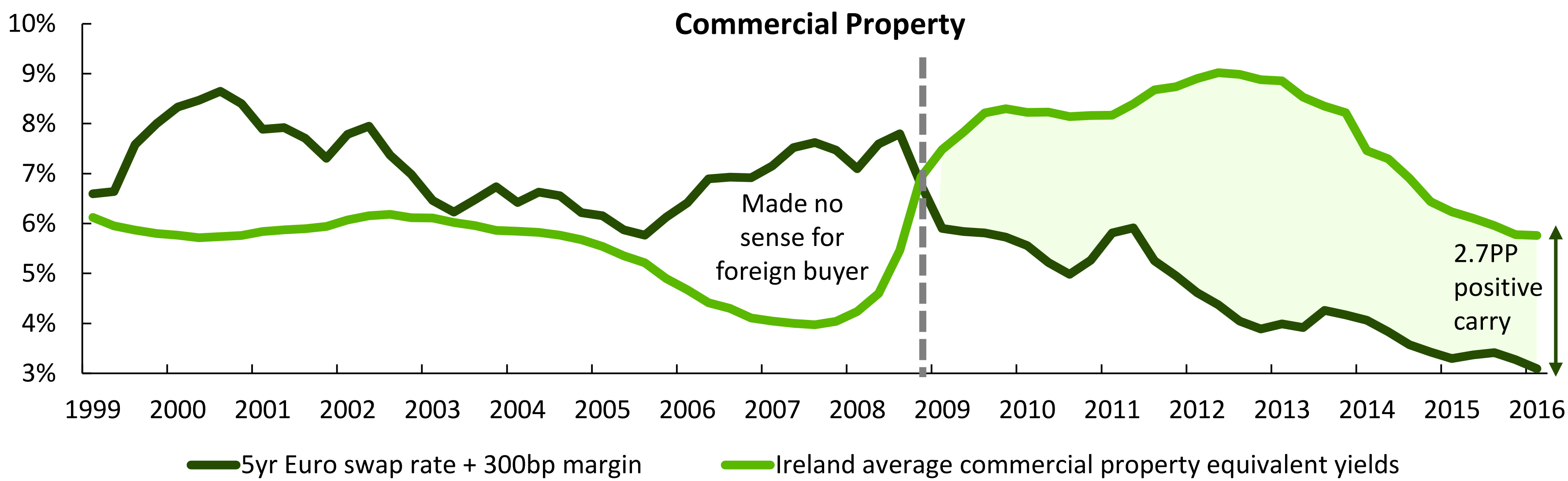
All data updated to 2015 Q4

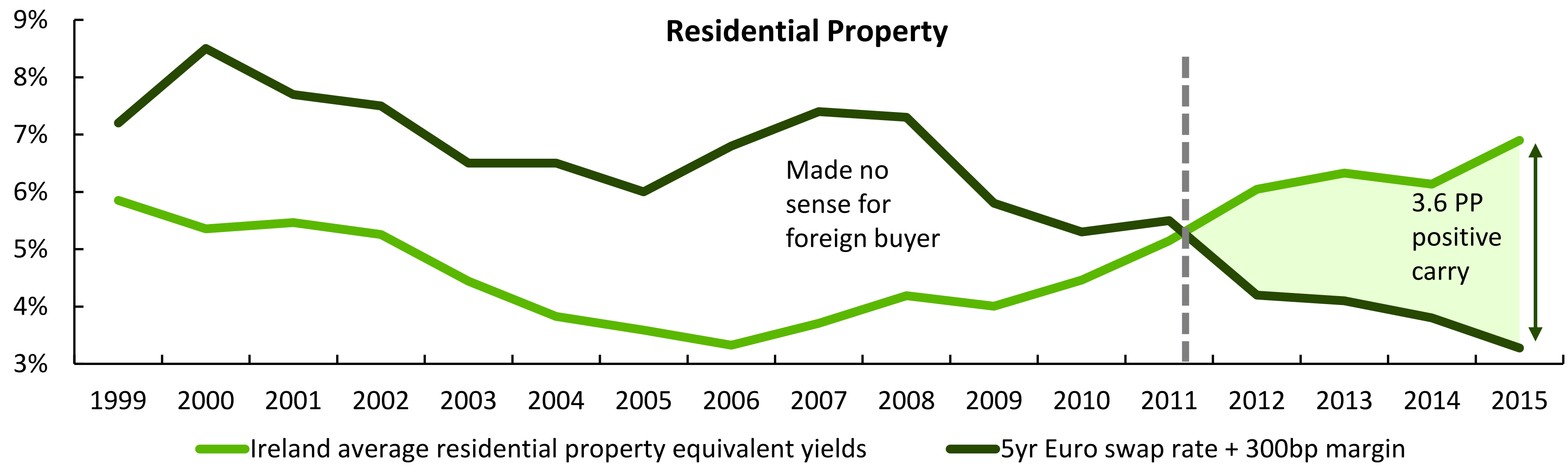
Real commercial property prices down 52% from peak (index 1983 = 100)



Source: Jones Lang LaSalle; IPD; NTMA

Investors interested on "carry trade" grounds





Source: IPD; NTMA

SECTION 6: NAMA

NAMA is set to make a profit of up to €2.3bn on wind-up

NAMA: over 80% of its original debt repaid

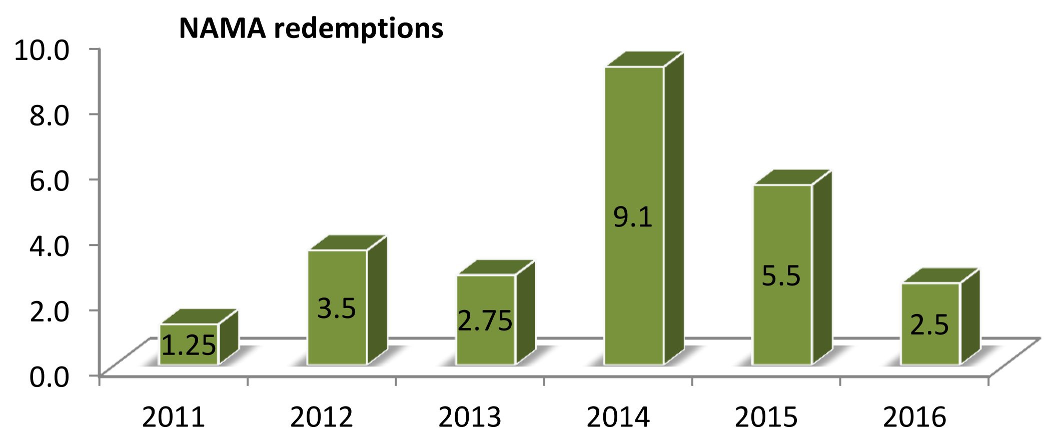
- **NAMA's operating performance is strong**
  - Acquired 12,000 loans (over 60,000 saleable property units) related to €74bn par of loans of 758 debtors for €32bn
  - NAMA continues to generate net profit after impairment charges.
- **Repaid €24.6bn (81%) of €30.2bn of original senior debt**
  - NAMA is meeting its senior debt redemption targets ahead of schedule. Originally, a target of 50% of redemptions was set for 2016. The Agency has already met its updated target of 80% of its senior debt redeemed by 2016.
- **NAMA may realise a surplus of up to €2.3bn, according to its management team - if market conditions remain favourable**
- **In October 2015, NAMA announced a new initiative to develop up to 20,000 housing units by 2020.**

More NAMA information available on www.nama.ie

NAMA: financial summary
2011 – 2015 Financial results (€m)

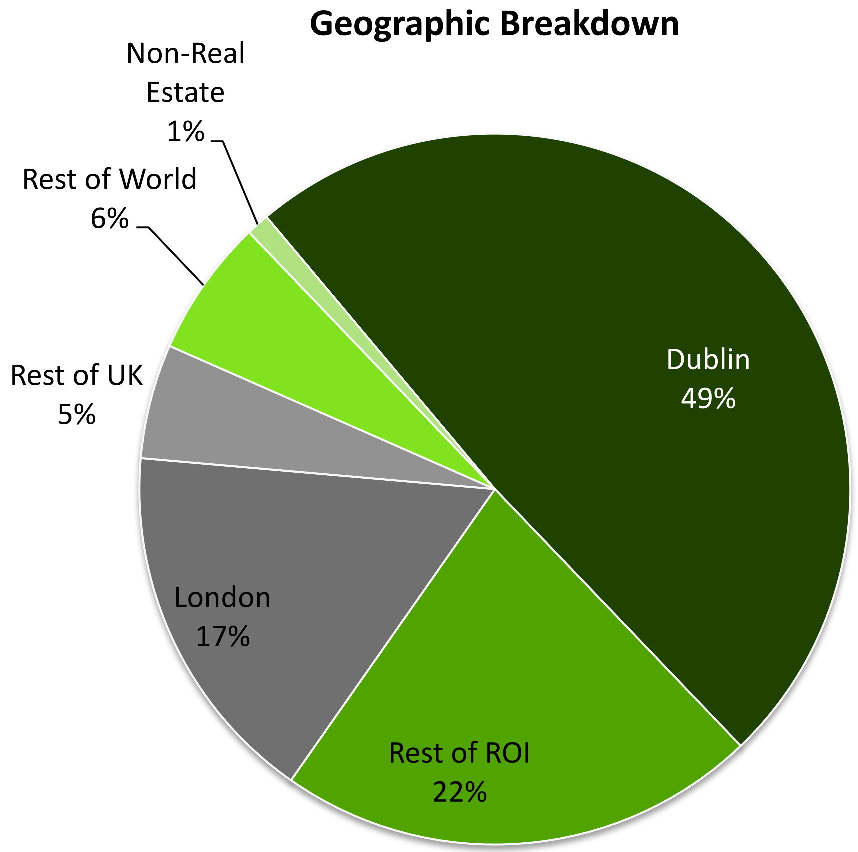
	2011	2012	2013	2014	2015
Net interest income	771	894	960	642	393
Operating profit before impairment	1,278	826	1,198	680	1,769
Impairment charges	(1,267)	(518)	(914)	(170)	86
Profit before tax and dividends	11	308	283	510	1,854
Tax (charge)/credit and dividends	235	(76)	(70)	(52)	(28)
Profit for the year	**246**	**232**	**213**	**458**	**1,826**

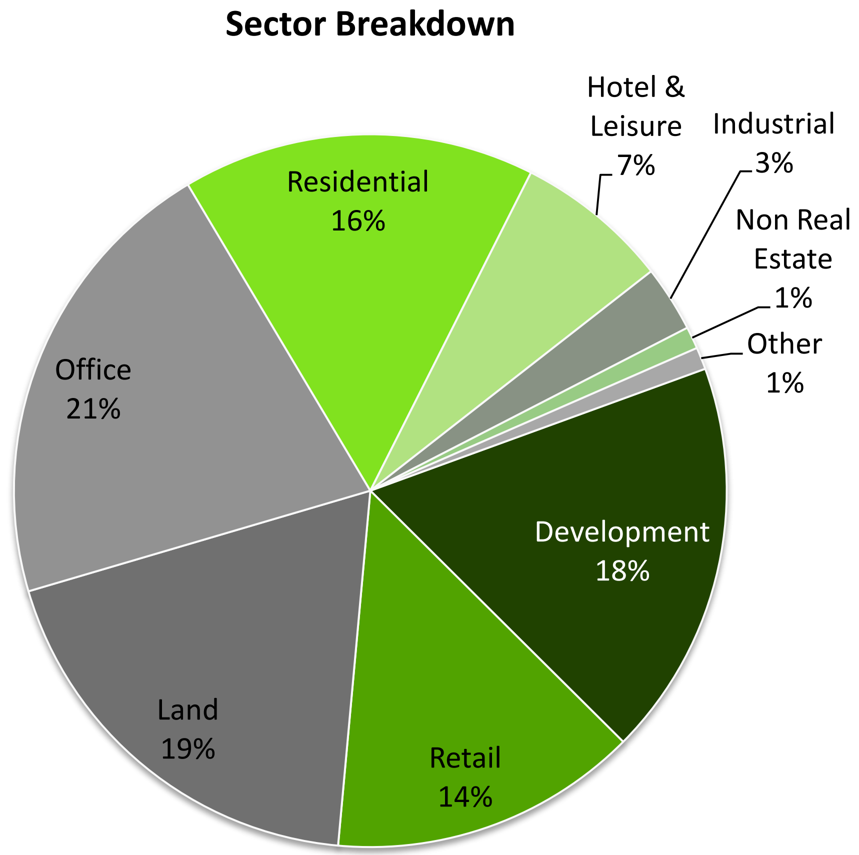
Source: NAMA



- **NAMA continues to generate net profit after impairment charges.**
- 2015 operating profit and impairment charges much improved than previous years
- €2.5bn of NAMA senior bonds redeemed in Mar 2016 bringing total amount redeemed to €24.6bn (81% of its senior debt liabilities)
- **All of €30.2bn in NAMA senior bonds expected to be redeemed by 2018**

Breakdown of remaining NAMA portfolio (€9.6bn, end 2015)





Vast majority of remaining portfolio in Ireland is in Greater Dublin Area or in other urban centres

Source: NAMA

NAMA's residential development funding programme

- **In reaction to the lack of housing supply, NAMA hopes to bring up to 20,000 housing units to the market by 2020 under programme**

- **The focus will be on starter homes and will be concentrated in the Greater Dublin Area**
  - 75% of units will be houses, 25% apartments
  - 93% of units in Greater Dublin Area (Dublin, Wicklow, Kildare & Meath)

- **Building progress has been strong so far**
  - 2,800 units completed across 58 developments since 2014
  - Another 3,100 are under construction across 40 developments.
  - Planning permission have been granted for another 5,200.
  - Planning applications have either lodged or will be lodged within 12 months for a further 11,700 units.

- **Existing NAMA commitments are unaffected by this new programme**
  - Plans for all senior debt to be repaid by 2018 and subordinated debt repaid by March 2020 are still in train

NAMA: Other strategic initiatives also progressing

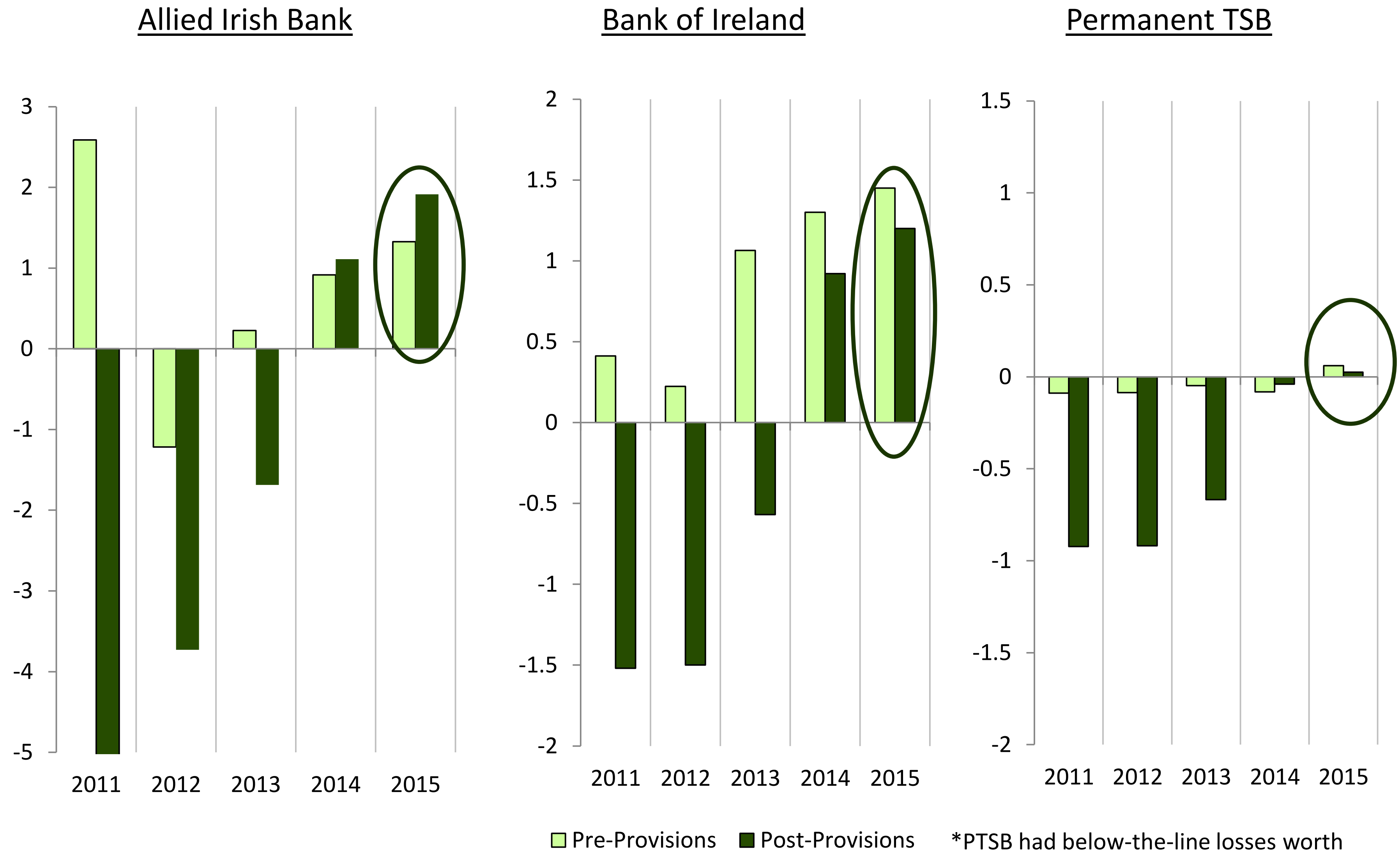
- **Dublin Docklands Strategic Development Zone (SDZ):**
  - A core objective of NAMA's development funding is to facilitate the delivery of Grade A office accommodation in the SDZ.
  - NAMA has an interest in 15 of the 20 development blocks identified in the SDZ and has developed detailed strategies for these blocks.
  - It is estimated that up to 3.8m sq. ft. of commercial space and 2,000 apartments could be delivered in all sites.
  - 47,500 sq. ft. of construction completed with another 1.2m sq. ft. of construction commenced. Planning has been granted on another 1.3m sq. ft.

- **Social Housing:**
  - A SPV – NARPSL – was established by NAMA to expedite social housing delivery. It acquires residential units from NAMA debtors and receivers and leases them directly to approved housing bodies (Department of the Environment, Community and Local Government; and the Housing Agency).
  - By end-December 2015, 2,500 have been confirmed as suitable by local authorities while 2,000 of those having been delivered.

SECTION 7: BANKING

Banks have returned to profit; environment has becoming more challenging

All three pillar banks in profit in 2015*

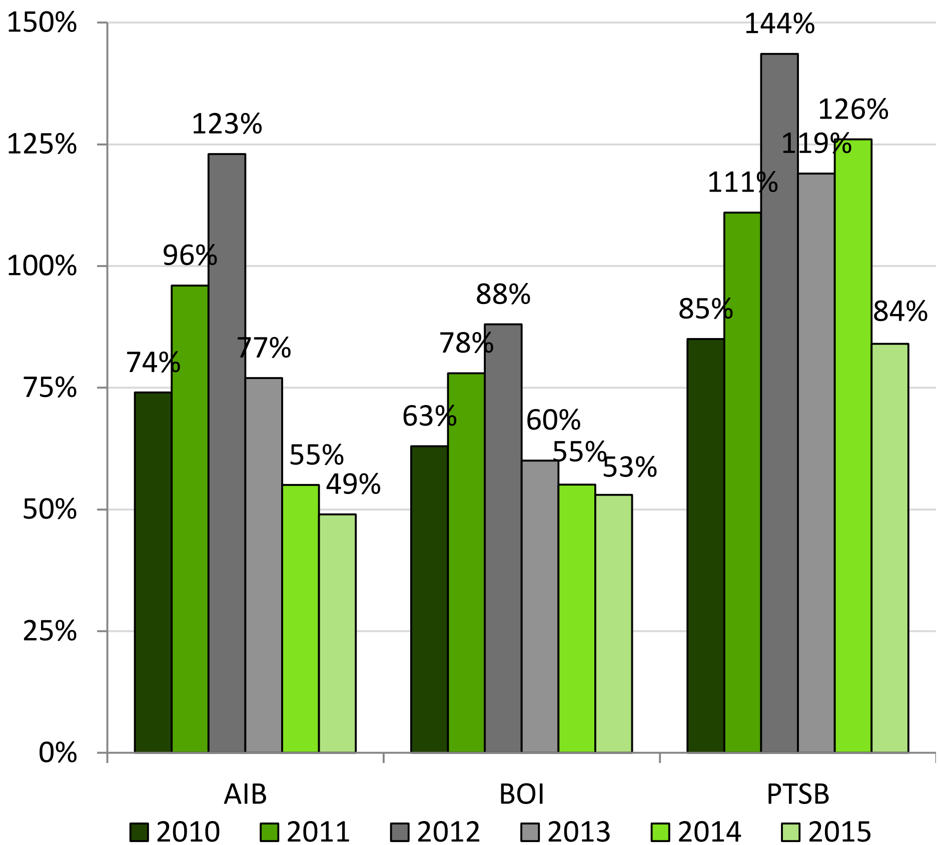


*PTSB had below-the-line losses worth €458m in 2015– operating profit was €26m before these items were included

Source: Annual reports of banks - [BOI](), [AIB](), [PTSB]()

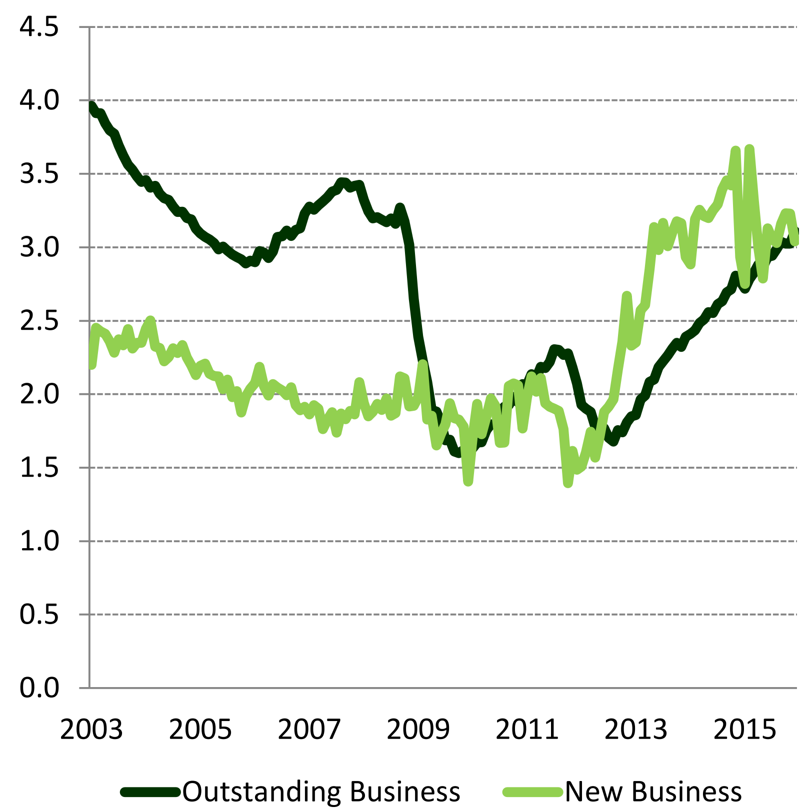
Banks fundamentally rebuild profitability

Cost income ratios improve dramatically



Source: Annual reports of Irish domestic banks

Net interest margins recover %



Source: CBI, NTMA Calculations

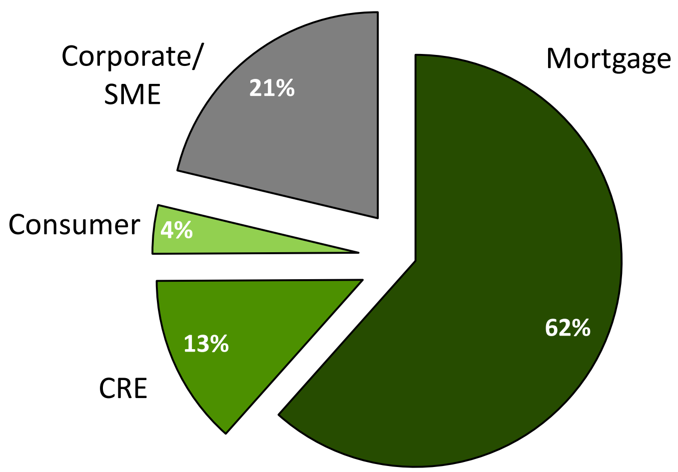
Note: Margins are derived from weighted average interest rates on loans and deposits to and from households and non-financial corporations.

Asset quality continues to improve; impaired loans and provisions fall in 2015

Impaired loans and provisions at PCAR banks (group and three banks)

PCAR Banks (€bn)	Dec-13	Dec-14	Dec-15
Total Loans	208.9	197.1	186.5
Impaired	53.9	43.1	29.0
(Impaired as % of Total)	25.8%	21.9%	15.5%
Provisions	29.4	23.5	14.7
(Provisions as % of book)	14.1%	12.0%	7.9%
(Provisions as % of Impaired)	54.5%	54.5%	50.6%

Loan Asset Mix (3 banks Dec 15)



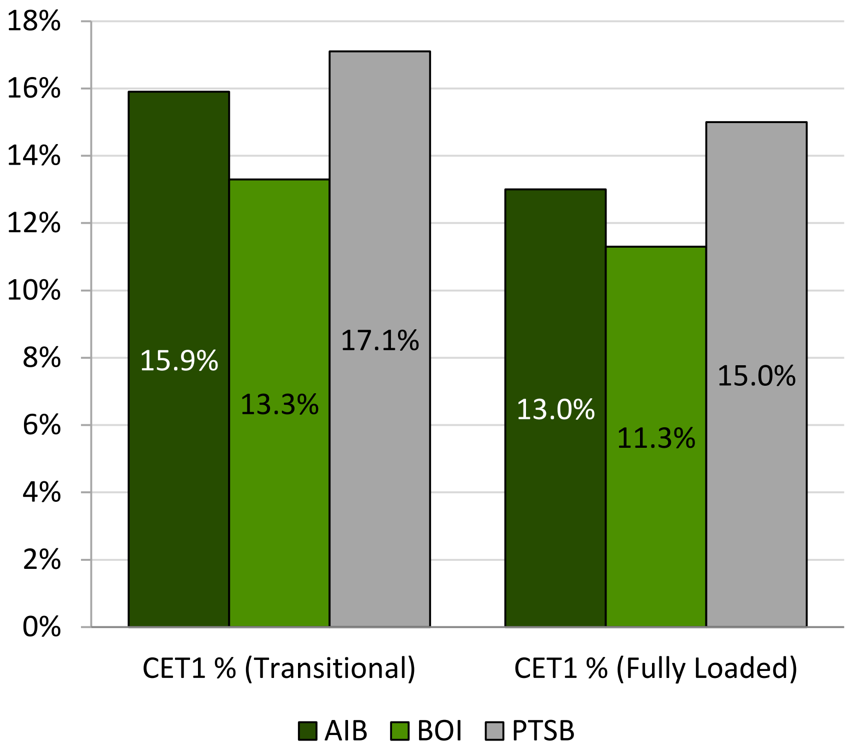
Source: Published bank accounts

Impaired Loans % (Coverage %)[1] by Bank and Asset		Dec-13	Dec-14	Dec-15	*Book (€bn)*
BOI	Irish Residential Mortgages	14.2(49)	12.6(46)	9.3(52)	25.0
	UK Residential Mortgages	2.4(24)	2.0(23)	1.6(22)	27.9
	Irish SMEs	26.7(50)	25.6(51)	21.9(52)	9.3
	UK SMEs	17.1(50)	16.9(44)	11.1(51)	2.4
	Corporate	7.5(41)	5.6(54)	4.6(59)	9.3
	CRE - Investment	42.3(38)	37.2(46)	28.5(53)	11.4
	CRE - Land/Development	89.3(68)	89.5(74)	84.8(76)	2.0
	Consumer Loans	8.4(90)	6.4(98)	4.1(105)	3.3
		18.5(48)	**18.2(50)**	**11.6(56)**	**90.6**
AIB	Irish Residential Mortgages	23.0(43)	22.6(40)	16.6(38)	34.5
	UK Residential Mortgages	11.3(53)	11.6(59)	10.8(50)	2.4
	SMEs/Corporate	30.0(64)	21.4(68)	11.5(63)	18.3
	CRE	66.7(64)	56.9(62)	37.4(61)	11.5
	Consumer Loans	33.2(81)	27.2(69)	19.9(77)	3.5
		34.9(59)	**29.2(51)**	**18.6(47)**	**70.2**
PTSB	Irish Residential Mortgages	26.0(47)	25.5(46)	23.6(49)	21.5
	UK Residential Mortgages	1.3(85)	1.5(60)	3.9(39)	3.6
	Commercial	68.7(63)	74.0(60)	35.8(69)	0.4
	Consumer Loans	26.0(105)	29.7(94)	27.0(93)	0.3
		23.6(51)	**24.5(51)**	**21.1(49)**	**25.7**

[1] Total impairment provisions are used for coverage ratios (in parentheses)

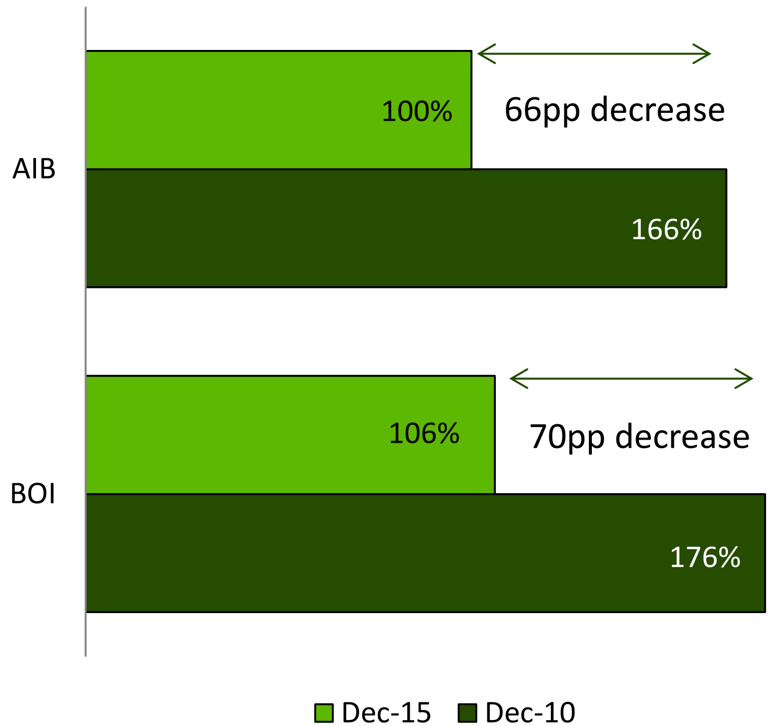
Capital and loan-to-deposit ratios strengthened

CET 1 Capital Ratios (Dec-15)



Source: Published bank accounts

Loan-to-Deposit Ratios (Dec-10 to Dec-15)



Source: Published bank accounts

- Common equity tier 1 capital ratios at the PLAR banks remain well above minimum requirements.

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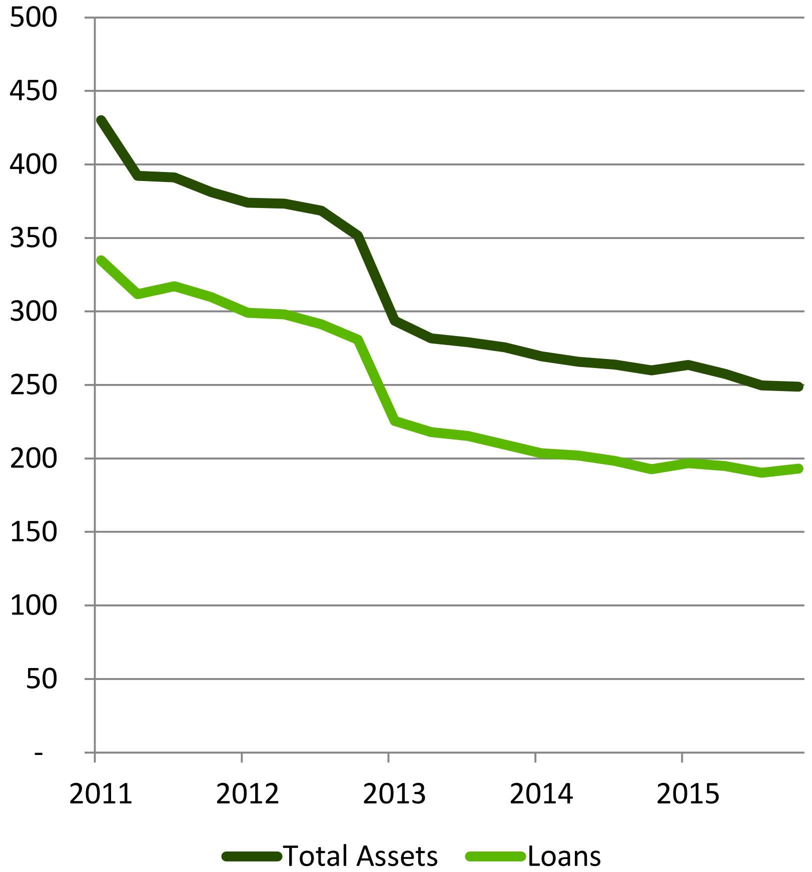
Note: “Transitional” refers to the transitional Basel III required for CET1 ratios which came into effect 1 January 2014. “Fully loaded” refers to the actual Basel III basis for CET1 ratios.
* The fully loaded CET1 ratios exclude the 2009 preference shares.

Aggregated balance sheet of the "Covered" banks much slimmer and more solid

"Covered" banks (€bns) have deleveraged



Aggregated Balance Sheet end 2015 €bn

Assets	**248.8**
• Loans and receivables	193.1
• Cash & other liquid assets	41.6
• Other	14.1
Liabilities	**225.2**
• Deposits	182.8
• Other Liabilities	42.3
Equity & Minority Interest	**23.6**

Source: CBI

Note: Banks included in this measure are outlined here; Balance sheet calculated on consolidated basis

Irish Banks have exposure to UK market; challenging environment following Brexit

BofI UK exposure

	End-2015	% of Group Total
Total Income	c. €820m	25%
Credit Outstanding	€39.8bn	44.0%
Operating Profit	€284m	19.6%
Impairment charge	(€139m)	47.0%

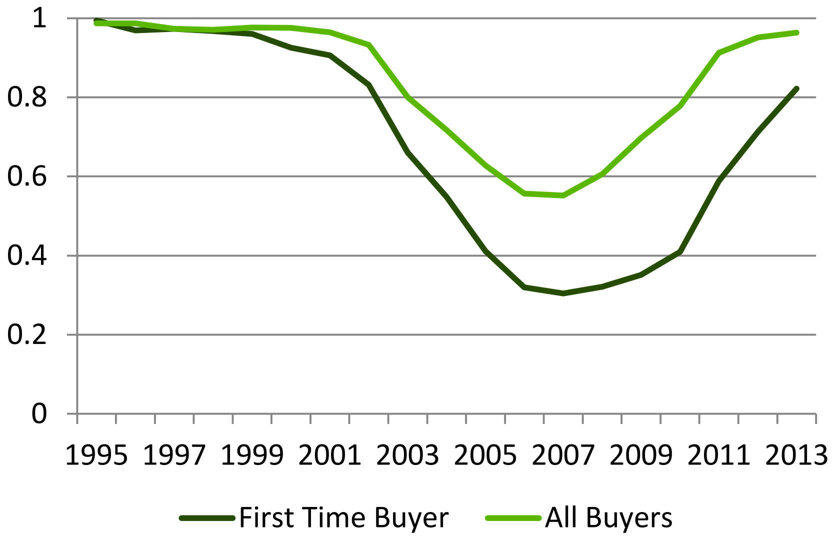
AIB UK exposure

	End-2015	% of Group Total
Total Income	€251m	10%
Credit Outstanding	€11.5bn	16.3%
Operating Profit	€134m	10.5%
Impairment charge	€32m	3.5%

Source: Published bank accounts

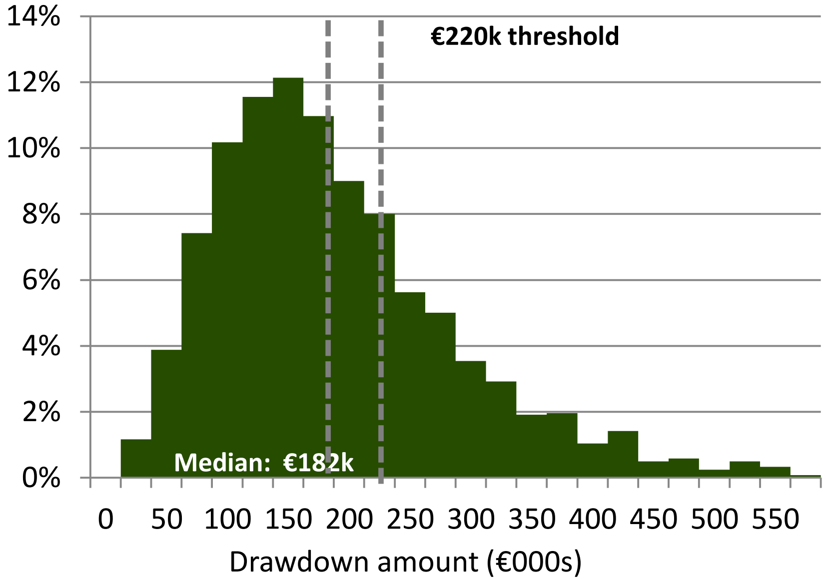
CBI's macro-prudential rules increase resilience of banking and household sector

Proportion of loans below 3.5 times LTI by year



Source: CBI

House price distribution for FTBs in 2014 H1



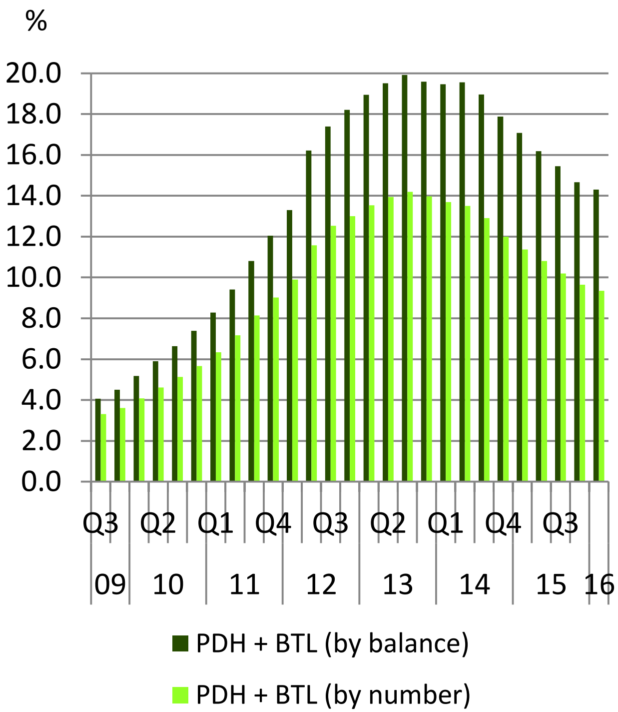
Key lending rules

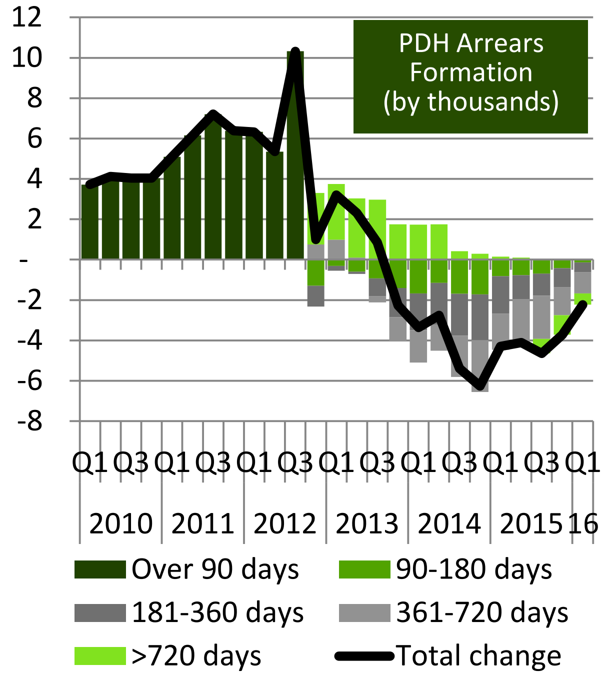
Banks must restrict lending for primary dwelling purchase above 80 per cent LTV to no more than 15 per cent of the aggregate value of the flow of all principal dwelling loans*
Bank must restrict lending for primary dwelling purchase above 3.5 times LTI to no more than 20 per cent of that aggregate value
Banks must limit Buy-to-Let loans (BTL) above 70 per cent LTV to 10 per cent of all BTL loans.

* First time buyers can borrow 90% of the first €220,000 and 80% of the remaining property value

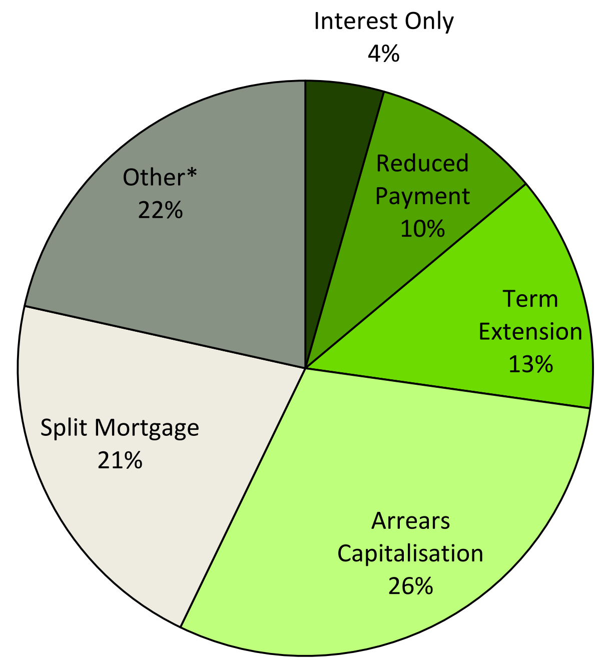
Irish residential mortgage arrears – improving across all maturity categories; still challenging environment

Mortgage Arrears (90+ days)





Total Restructured/Rescheduled Cases



Source: CBI

- PDH mortgage arrears have fallen steady since for 10 quarters. The smaller BTL market (c. 25% of total) has higher arrears but also saw declines in the same period.
- 120K PDH mortgage accounts were classified as restructured at end-March 2016. Of these restructured accounts, 87% were meeting the terms of the restructured arrangement.

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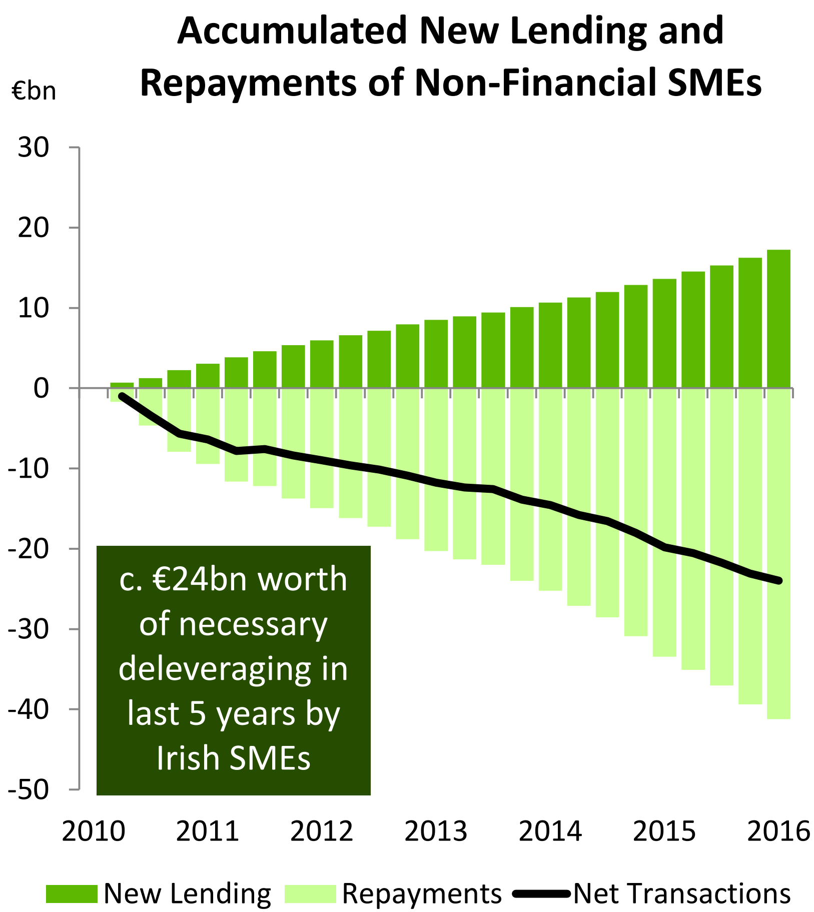
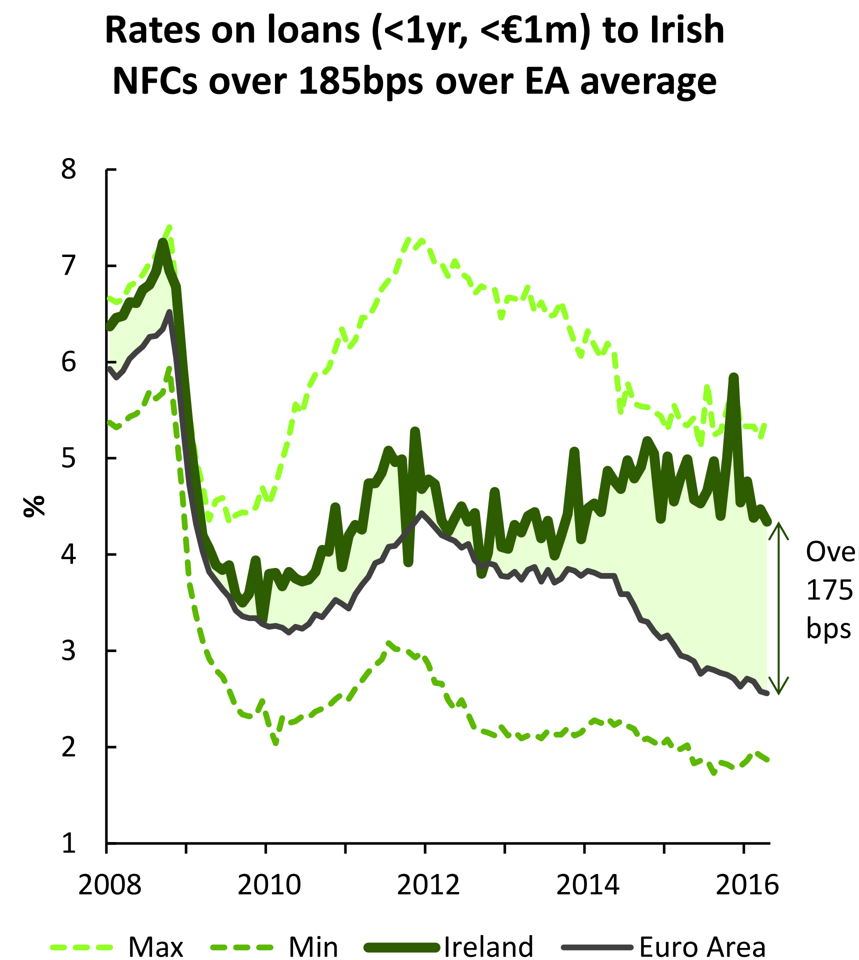
* 'Other' comprises accounts offered temporary Interest rate reductions, payment moratoriums and long-term solutions pending six months completion of payments.

SME deleveraging continuing as dispersion in interest rates persists across EA





Source: CBI; ECB

Note: Annualised Agreed Rate is defined by the ECB as 'the interest rate that is individually *agreed* between the reporting agent and the NFC for a loan, converted to an annual basis and quoted in percentages per annum. The rate shall cover all interest payments on loans, but no other charges that may apply.'

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