



**An Phríomh-Oifig Staidrimh**  
Central Statistics Office

# Economic Globalization and Global Production

9 June 2017

Association de Comptabilité Nationale, Paris

*Michael Connolly*

*CSO National Accounts Integration and LCU*



1. Globalisation  
in the Standards

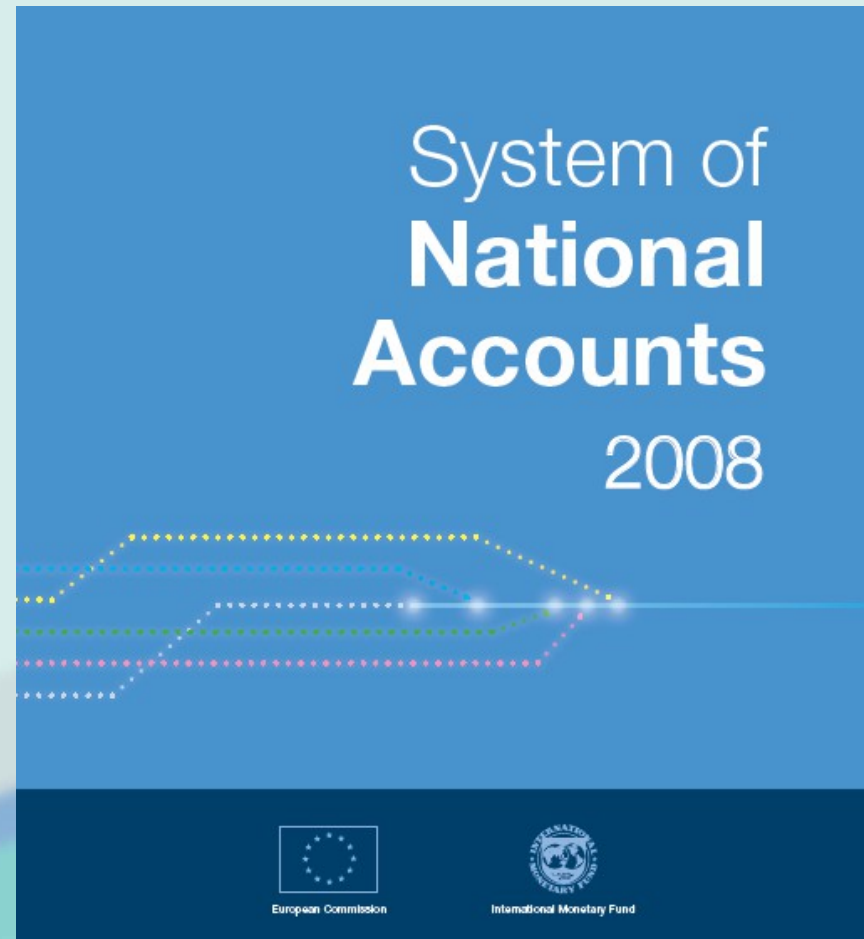
2. Impact of  
R&D

3. ESG

4. Alternative  
approach  
& Conclusions

# Key Issues from SNA 2008 BPM6

- **Research and development**
- **Change of economic ownership**
- **Predominant centre of economic interest**
- **Global Production**
  - **Goods sent abroad for processing**
  - **Merchanting**

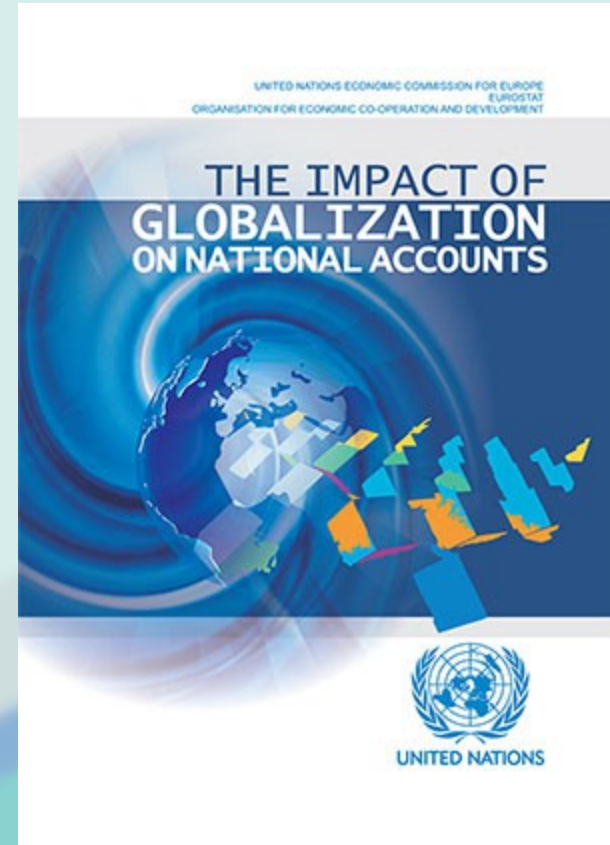




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# Guide to Globalization in National Accounts

- MNEs and allocation of value added
- MNEs and FDI
- SPEs
- Goods for Processing
- Merchanting
- IPP Transactions
- Global Manufacturing

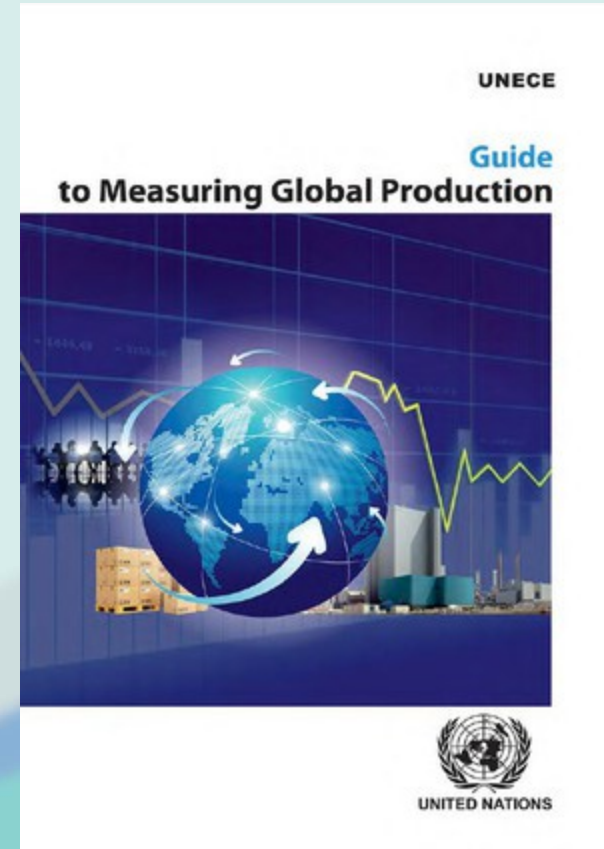




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# Guide to Measuring Global Production

- Typology of Global Production
- Economic Ownership in general and IP
- Measuring Global Production





# Globalisation Measurement Challenges

- **Centre of economic interest** (resident units)
  - Corporate Relocations - of assets, particularly intellectual property (IP)
  - Headquartering: re-domiciled firms & corporate inversions
- **Change of economic ownership**
  - Contract Manufacturing, significant MNE activity, but also carried out by domestic firms
  - Aircraft leasing



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# Irish Case

- Published NIE 2015 – July 12, 2016
- GDP Constant Prices – growth 26.3%
- GNP Constant Prices – growth 18.7%
- Represented a level shift in our figures



# Some details

- National Accounts data related to relocations were based on hard data from respondents
- Important role of CSO's Large Cases Unit (LCU) – quality and consistency across macro and business statistics
- Changes driven by globalisation activities
- Ongoing trend – but scale was different
- Significantly - a small number of entities involved
- Figures compiled in compliance with ESA 2010
- Figures were verified by Eurostat

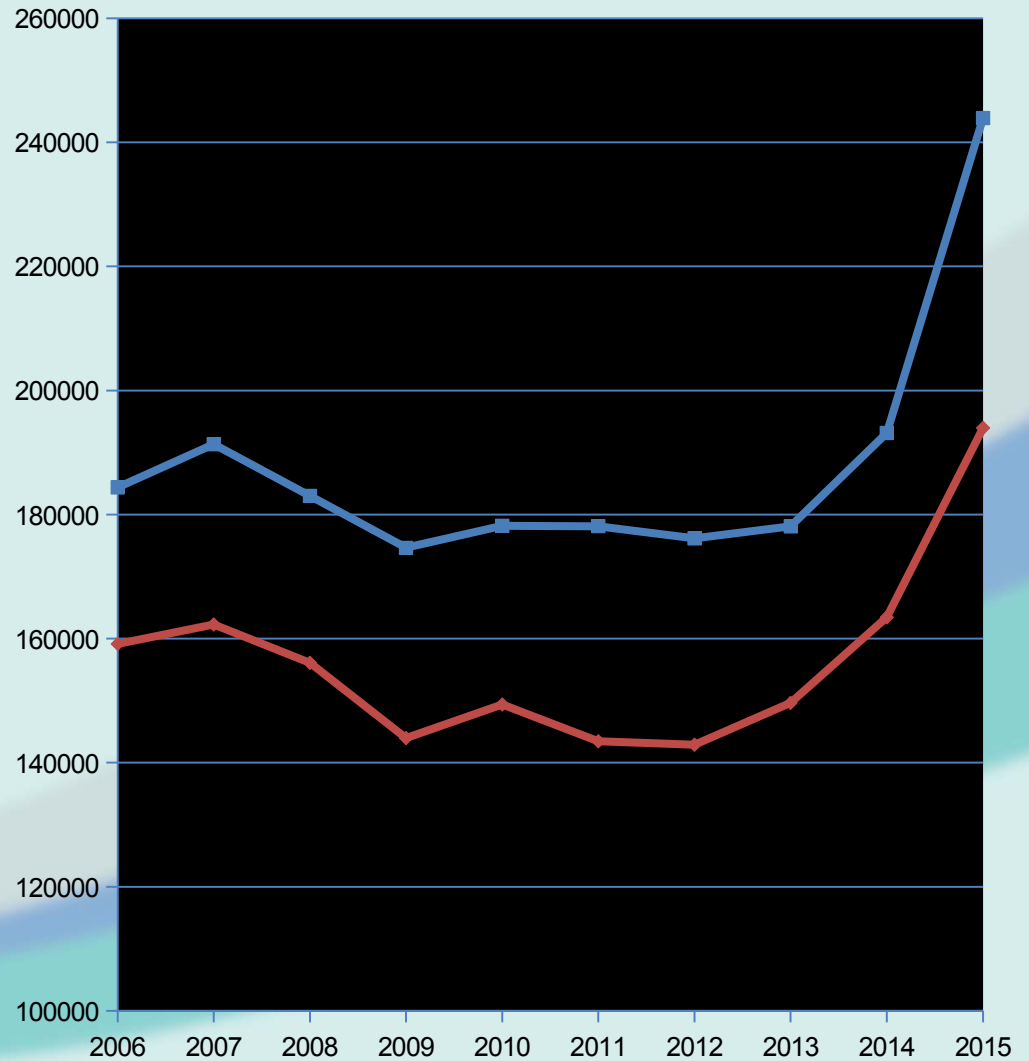


# Year-on-Year Growth Rates

**GDP + 26.3% (+7.8%)**

**GNP + 18.7% (+5.7%)**

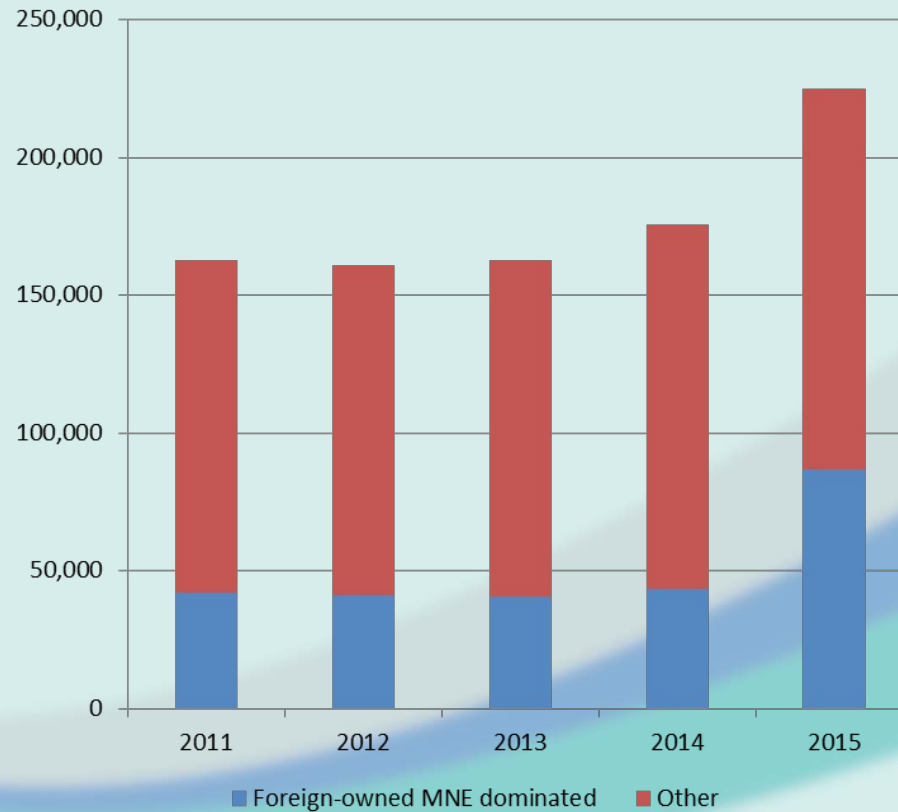
*Previous provisional estimate in brackets*





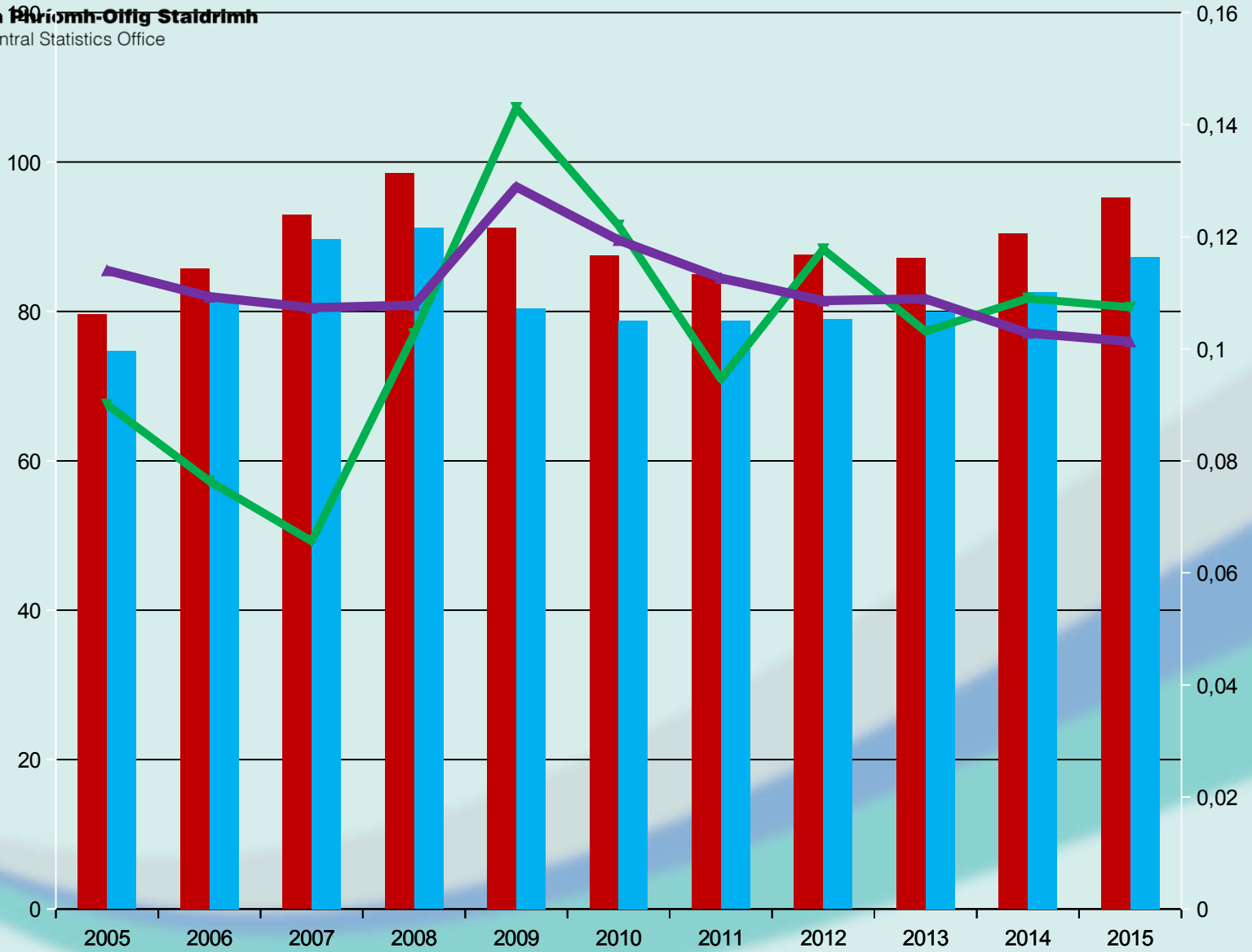
# MNE vs Domestic

## GVA at Constant Basic Prices





€billions



Ratio

■ GDI ■ PCE ■ Saving Ratio ■ EU Saving Ratio



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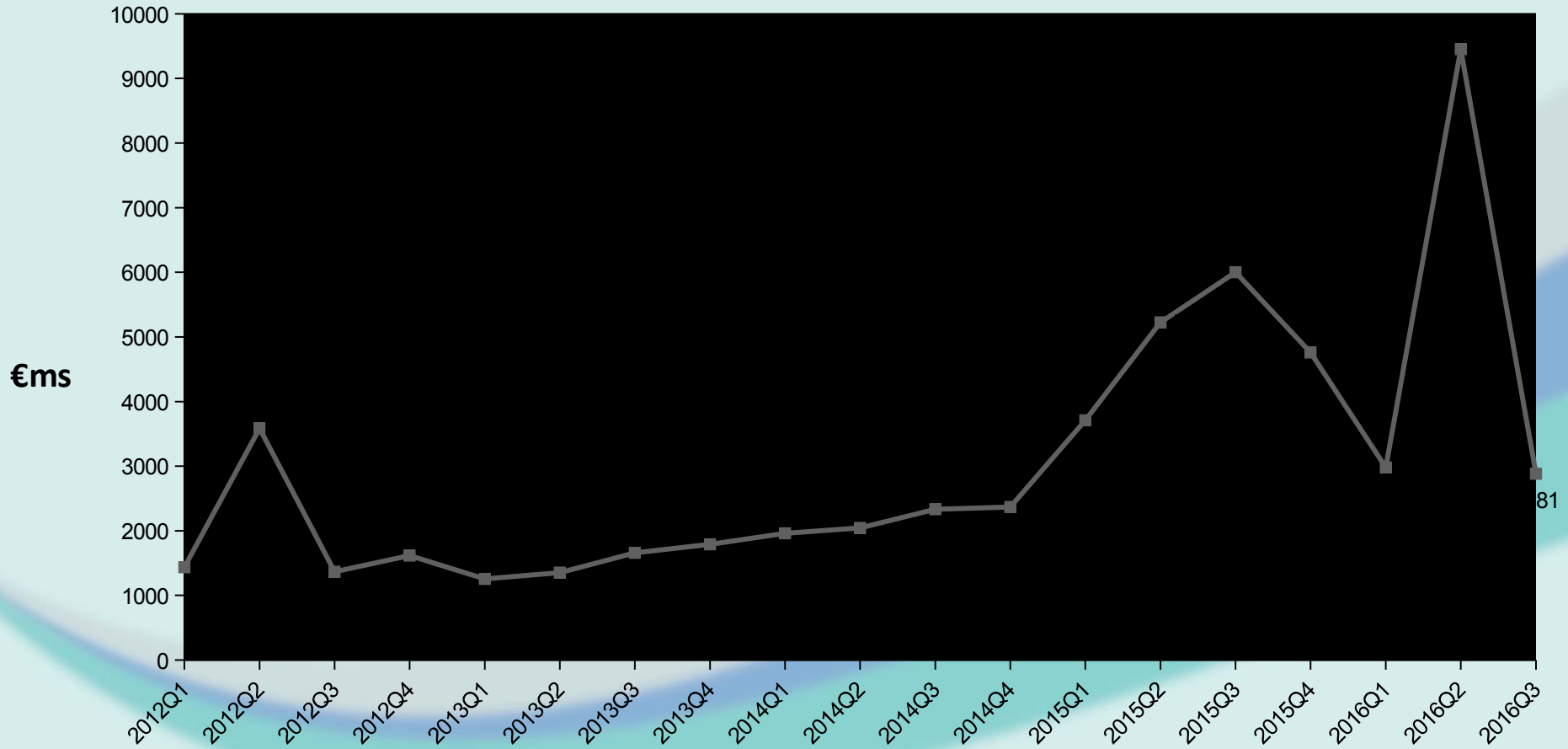
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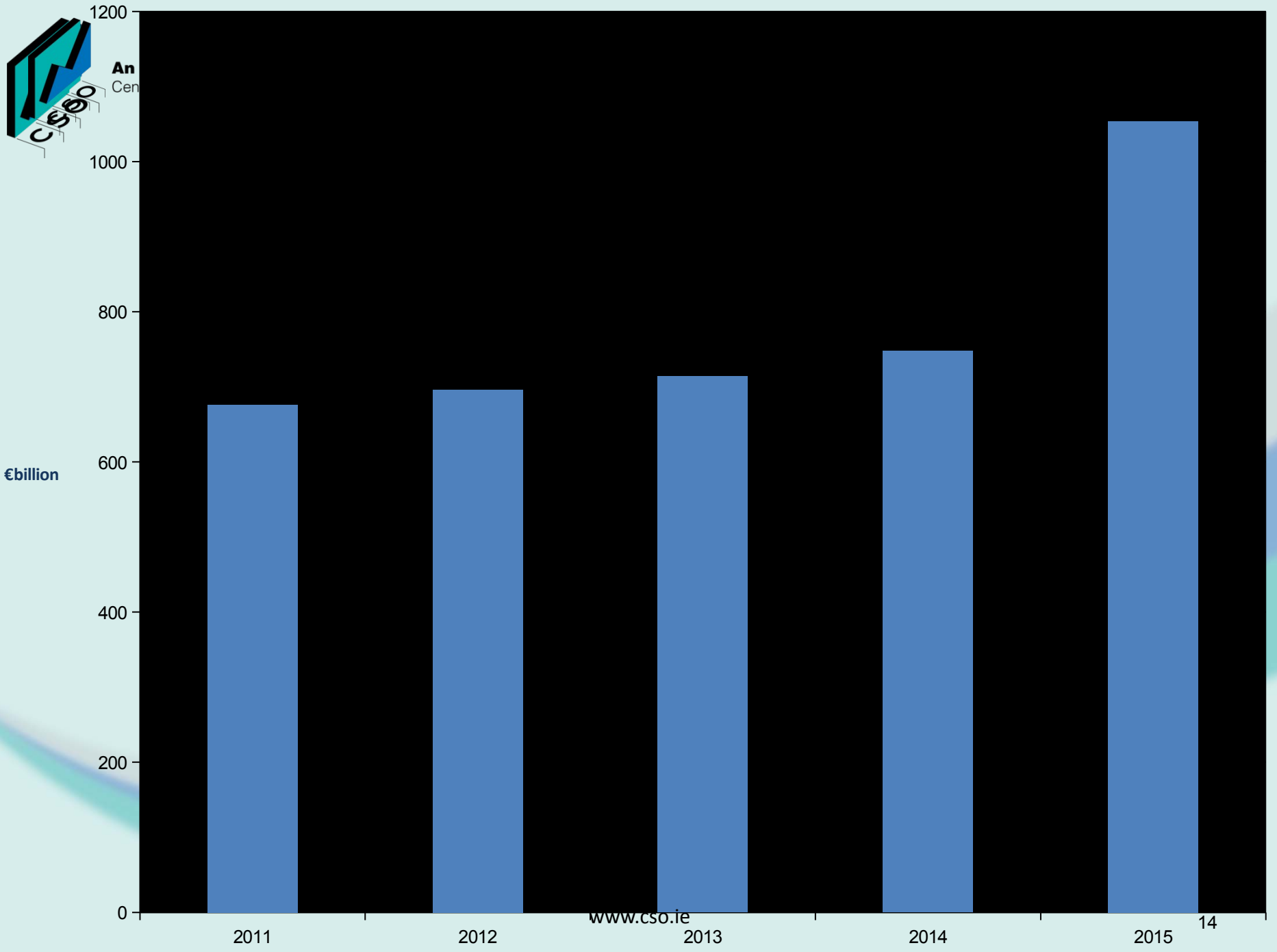
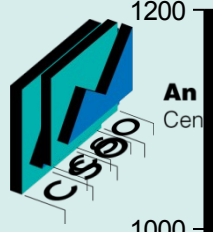
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# Quarterly Imports of R&D 2012 – 2016







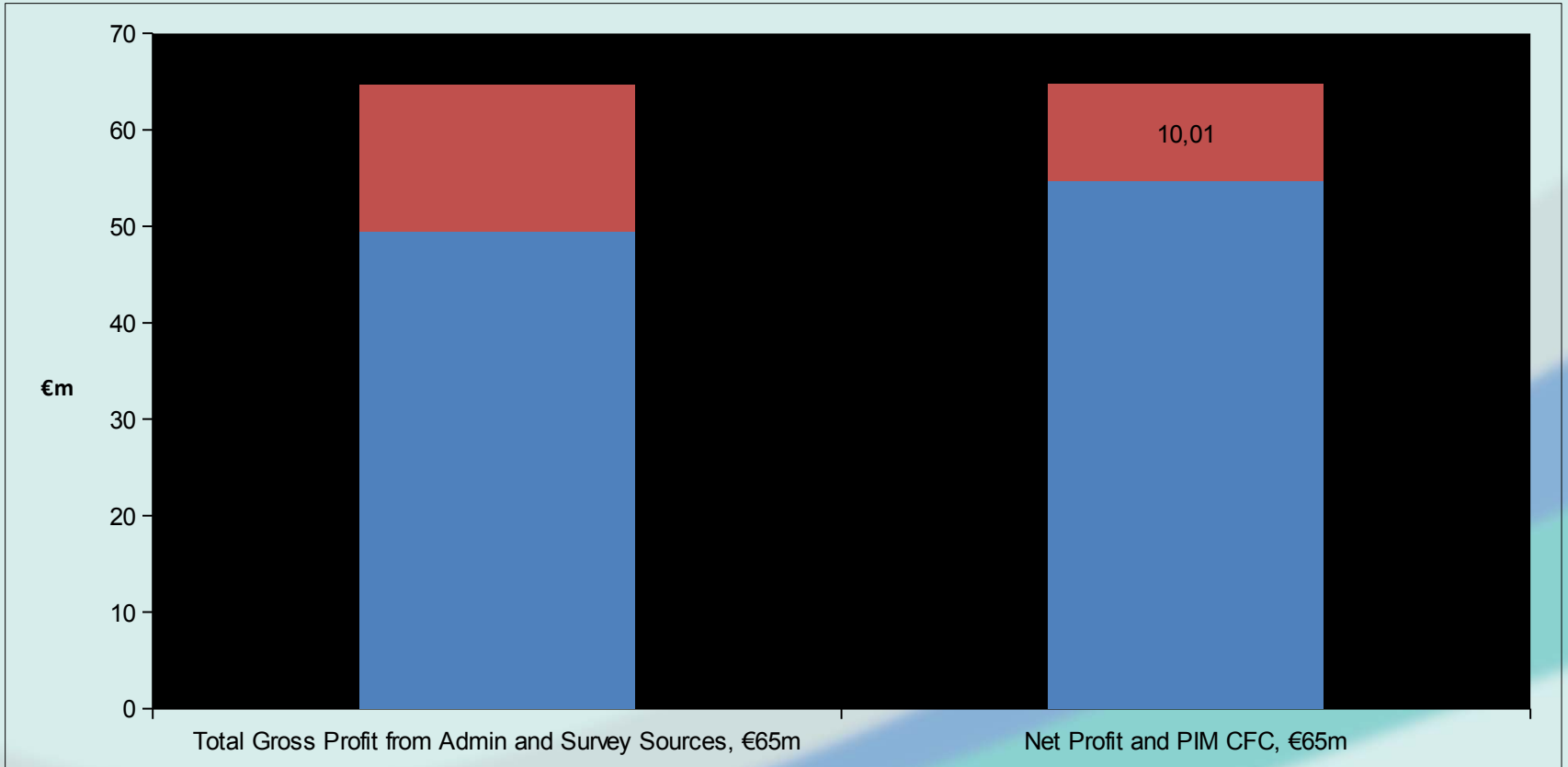
# Impact of relocations on GDP – GNI transition

- BOP Entrepreneurial income is calculated after depreciation
- Impact of additional depreciation

Year	GDP	Depreciation	Net Factor Flows	GNI	NNI
2014	193,160	30,891	-29,715	161,759	130,868
2015	255,815	61,558	-53,173	200,762	139,204
Diff	62,655	30,667	-23,458	39,003	8,336
Change	32.4%			24.1%	6.4%



# Profits and Depreciation - Operating Surplus and Net Factor Income from Abroad







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# European Statistical System Framework

Managing the balance between:

European Statistics Code of Practice

- Principle 11: Relevance
- Principle 15: Accessibility and Clarity  
and
- Principle 5: Confidentiality



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# Summary of Terms of Reference

- Provide direction to the CSO on how best to meet user needs for greater insight into Irish economic activity
- A focus on measures additional to the CSO's legal requirement to produce national accounts and balance of payments statistics
- New presentations of existing information to improve understanding
- Recommendations to be feasible, consistent over time, cover short- and long-term initiatives



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# Expert Group

- Increasingly difficult to represent the complexities of Irish economic activity using single headline indicators such as GDP or GNP
- Expert group focus on recommendations for the improvement and development of indicators and analyses giving additional insight to the domestic economy
- First meeting of the group September 19th and the group met six times between mid-September and November 2016
- Group reported to the Director General of CSO on 23 December 2016



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# Update – Expert Group Membership

- **High-level cross-sector consultative group**
  - **Philip Lane (Chair) - Central Bank Of Ireland**
  - **Alan Barrett - ESRI**
  - **Seamus Coffey - UCC**
  - **Thomas Conefrey - IFAC**
  - **John Fitzgerald - TCD and Irish Times**
  - **John McCarthy - Department of Finance**
  - **Dan O'Brien – IIEA, Irish Independent**
  - **Fergal O'Brien - IBEC**
  - **Frances Ruane - TCD, ESAC**
  - **Marie Sherlock - SIPTU**
  - **Rossa White - NTMA**
  - **Jennifer Banim and Michael Connolly - CSO**
  - **Eurostat and IMF - International observers**



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# ESRG – Main findings

- 13 recommendations across 5 main themes
  - **Level Indicators:** modified measure of the size or level of economy to support additional analysis – “denominator issue”
  - **Structural Indicators:** understand the MNE vs Domestic structure of the economy
  - **Cyclical Indicators:** to provide additional detail on what is happening domestically (focus on expanded component analysis of Expenditure side of National Accounts)
  - **Communications**
  - **Co-operation**
- Focus on insight into domestic activity



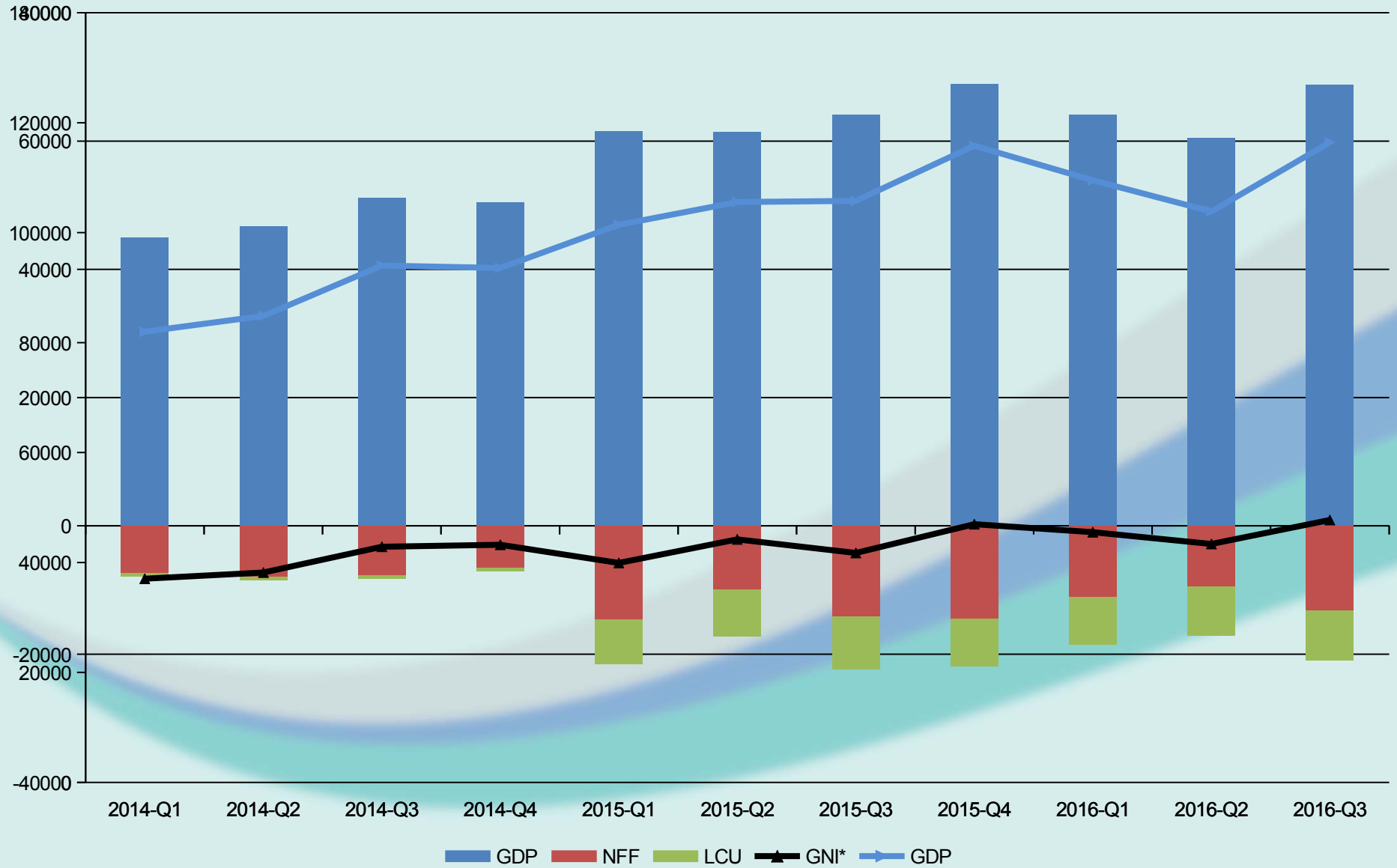
# Level Indicator

- Gross National Income\* (GNI\*)
  - GNI adjusted for retained earnings of re-domiciled firms and depreciation on foreign-owned domestic capital assets
- Modified measure of the size or level of economy
- Additional and useful input to economic modelling and analysis, including use “under the line” for ratio analysis
- Top-down approach to developing GNI\*
  - Annual series initially in mid-2017, with focus on re-domiciled firms and depreciation related to intellectual property products



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# Level Indicator - Illustration







# Structural Indicators

## MNE vs Domestic

- Foreign-owned vs domestic view of economic structure
- Initially use LCU firms as basis for split
- Ultimately build up from the micro (company) data for all foreign-owned firms

Estimated split of foreign/domestic value added (2014) based on sources of foreign market

Total Gross Value Added (€bn)	Foreign-owned firms (€bn)	Domestic firms (€bn)	% Foreign-owned
177	42 (LCU firms)	135	24.0%
177	58 (LCU + all other firms with foreign marker)	119	32.9%

# Extended Sector Accounts

**S11  
Non-  
Financial  
Corporations**

**S11  
Foreign-  
owned  
MNEs  
incl. Large  
Case firms**

**S11  
Domestic  
incl. Irish  
MNEs**

**S12  
Financial  
Corporations**

**S13  
Government**

**S1M  
Households  
and NPISH**

**S2  
Rest of  
World**



# Cyclical Indicators

- Expanded component analysis of Expenditure side of National Accounts
  - Additional detail on globalisation-related activities
- To support development of additional measures of underlying investment, additional detail in mid-2017 on
  - Intellectual property product relocations
  - Aircraft leasing
  - Re-domiciled firms
  - Contract manufacturing in Exports and Imports data
- With the Structural Indicators, will give good information of effect of globalisation on Irish economy
- Longer-term work: annual and quarterly Net National Product (NNP) at current and constant and prices



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# Introduce new classifications

- Aircraft leasing
- Re-domiciled firms
- Foreign owned multi national corporations-  
non financial
- Financial Corporations
- Irish Corporations



# Extend existing classifications

- Help develop a more developed understanding of Nat Acc and BOP
- Extend presentation on Sector Accounts of Non-Financial Corporations to show domestic and foreign owned sectors
- Extend from Gross aggregates to Net - NDP, NNP and NNI



# Extend existing classifications

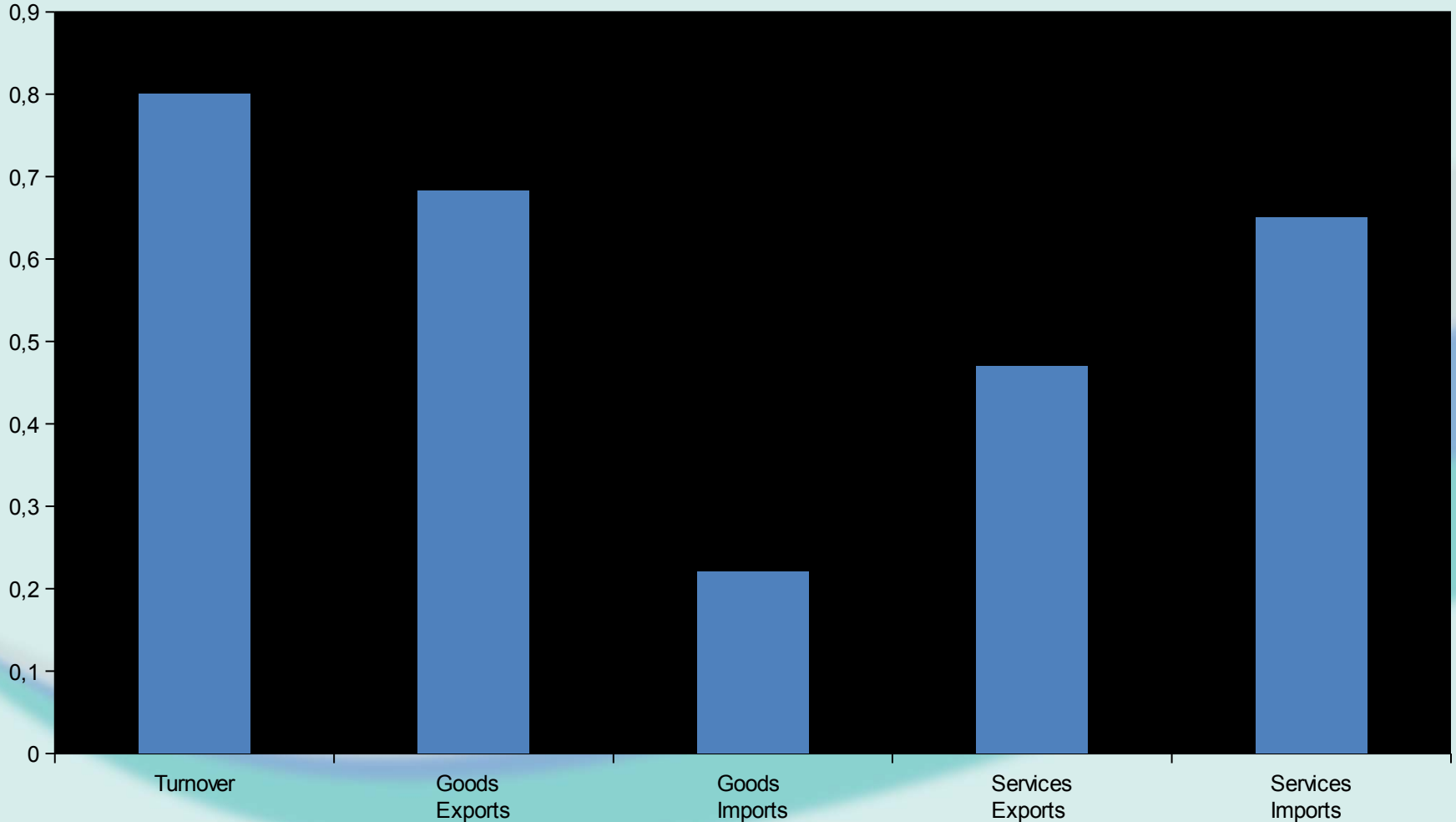
- Publication of supplementary monthly industrial production and turnover (IPT) data adjusted for the impact of foreign MNE-related activity
- Alternatively-weighted IPT indices, using sectoral manufacturing wages rather than gross value added as fixed base weights.



# MNE & LCU Dominance

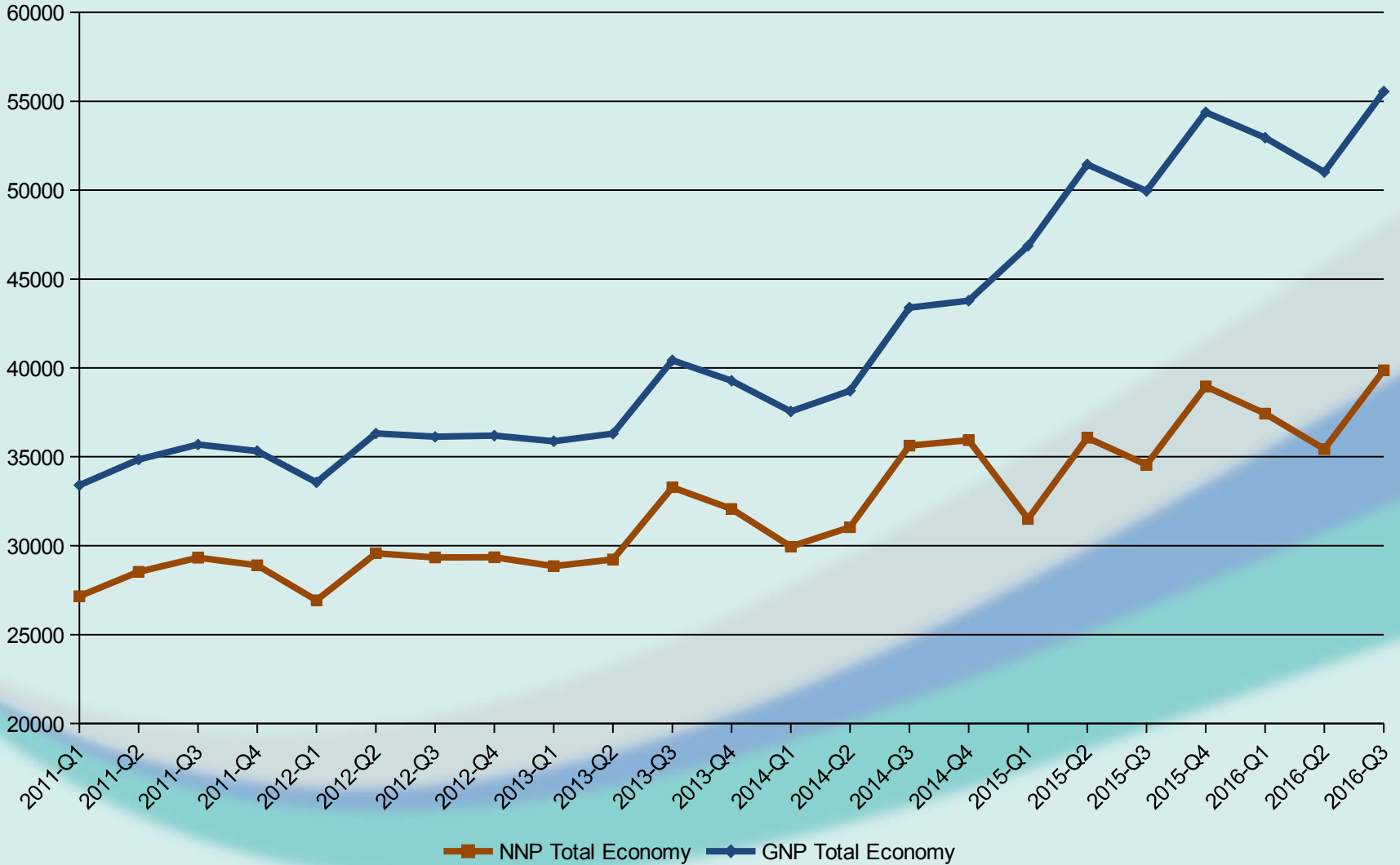
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## 2015 Data





# Net National Product







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# Key Messages

- Focus of the ESRG - analyses or indicators that would provide a better understanding of the domestic components of highly globalised Irish economy
- GDP and GNP continue to be the international standard indicators
- GNI\* proposed to address the specific nature of the Irish economy
- Additional structural and cyclical measures recommended to give users more broad-based information on the Irish economy



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# Implementation

- Multi-year programme to deliver recommendations
  - Short-term (during 2017) and longer-term deliverables
- CSO will take incremental approach – initial development, focusing on annual analyses and then review
- Focus in 2017 will be on:
  - Modified Gross National Income indicator GNI\*
  - Large Case vs Other firms view in Sector Accounts
  - Additional detail on intellectual property products (IPP), aircraft leasing & contract manufacturing



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# Alternative Approach

- Record cross border inter affiliate IP transactions as financial assets
- Could be thought of as securitized assets
- Impact on Capital Balance sheet and capital account removed
- Financial Account and Balance Sheet (IIP) would be balanced
- All income would be attributed to Foreign Direct Investor



# Summary

- R&D in context of SNA 2008 (ESA 2010)
- Changed regulatory environment – BEPS etc.
- Unanticipated consequences of inter affiliate cross border IP transactions and relocations – depreciation
- GNI\* and cyclical and structural indicators
- Alternative approach - financial asset



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