



Competitiveness measures: Labour force implications

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Agenda

Part 1. Why competitiveness matters

Part 2. Changing measures of NI competitiveness

Part 3. Implications for the labour force

Part 4. Implications for future research/policy



Part 1.

Why competitiveness matters

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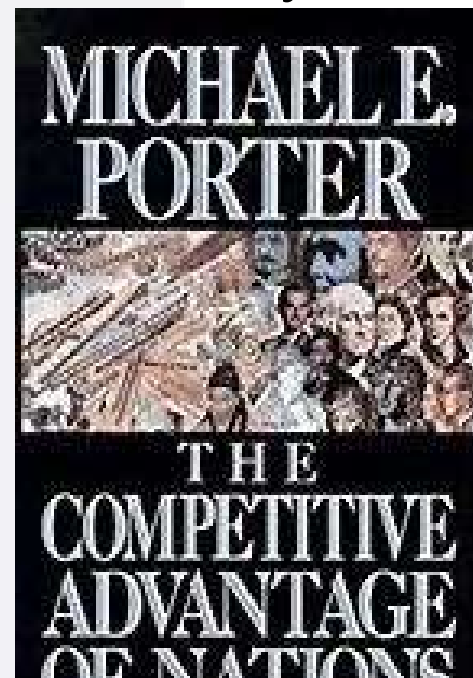
First of all, a definition

Competitiveness=

Ability to sell the output of the region- both domestically and internationally- whilst also being able to maintain high and rising living standards.

Approximates to relatively high productivity level and growth.

Similar to M. Delgado,
C. Ketels and
M. Porter (2012).



Why competitiveness matters

Because it has two positive impacts

- On wage levels and hence living standards.
- Business survival and growth.



Responsible for "...the superior affluence and abundance commonly possessed even by [the] lowest and most despised member of civilized society". Adam Smith



Part 2

Changing measures of NI competitiveness

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Based on article, online Regional Studies, March 2019

Birnie, R. Johnston, L. Heery and E. Ramsey

This article critically assesses how the measurements have developed between 1957 and 2017 [Note to Editors 1]:

<https://www.tandfonline.com/eprint/WytCK5QRfAJPM4A68qhB/full?target=10.1080/00343404.2019.1569757>

Four measurement methods

Research conducted by	Year published	Type of measurement
Isles and Cuthbert “Productivity”	1957	Statistical, net output per worker, mainly manufacturing, NI/GB
Hitchens, Wagner and Birnie “Productivity”/”matched plant”	1990-5	• Statistical, net output per worker, manufacturing+other sectors, NI/GB, NI/Germany, NI/USA • Survey, volume of output per worker, c. 40 matched plants, W.Germany/NI, other European/NI

Four measurement methods

Research conducted by	Year published	Type of measurement
Cambridge Econometrics and SQW “WEF Index”	2013	Largely survey, assessment by 103 CEOs of NI’s position on 113 indicators, NI compared to 144 countries.
UUEPC “Competitiveness Scorecard”	2016	Statistical, 132 indicators, NI compared to 30+ countries (i.e. EU, OECD members)

The results

The measurement of NI's competitiveness

The competitiveness study	What it found (more stats in Annex)
Isles and Cuthbert (1957) "Productivity"	NI net output per worker across a range of manufacturing activities c. 60-70% of GB in 1930s and 1940s
Hitchens, Wagner and Birnie (1990) "Productivity"/"matched plant"	- NI net output per worker in manufacturing c. 80% of GB 1960s-80s - NI volume output per worker 40-75% of W. Germany c. 1989 and lower product quality
Cambridge Econometrics and SQW (2013) "WEF"	NI 42 nd of 145 comparators (1 st "best"), UK 8 th , R.o.Ireland 27 th . NI just > Barbados, Lithuania and Azerbaijan. NI just < Turkey, Italy and Poland.
UUEPC (2016) "Scorecard"	NI in 7 th decile from top- below more than 60% of comparators.

Glass half full and half empty

- **Half full**- after 60+ years of changes in the measures and various research we now *know more* about the nature of NI competitiveness.
- **Half empty**- after 60+ years there is still a substantial shortfall in competitiveness.





Part 3

Implications for the labour force

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Strong indications of skills shortfall

1. **Productivity analysis** 1980s

noted % of labour

force certain skill levels < UK average.

Degrees and equivalent % of manufacturing

Labour force 1981 NI 4.3%, UK 8.7%.



2. In the **matched plants**, degrees and equivalent NI 2.3%, W. Germany 11%. W. Germany more skilled in 88% of pairwise comparisons.

3. **WEF-based** (2013), CEO's identified a shortfall: Secondary enrolment, quality management schools and availability of R&D services.

4. **Scorecard** (2016), this was one of the lagging indicators, e.g. on skills mismatch (medium skills) 21st of 29 comparators (NCC (2016) similarly for Republic of Ireland).

Some limitations on such analysis

- Mostly comparison of qualifications on paper- what about quality? (See Paul MacFlynn Dec. 2017, “A low skills equilibrium in NI?”, NERI Working Paper, 49.)
- Limited differentiation between types/levels of skills.

4 Types of Skill Shortages



4. *Loss of knowledge critical for sustaining performance (e.g. vg sales)*

3. Lack of skilled workers for *new/emerging roles* (e.g. robotics techs)

2. Shortage of *high-skilled* workers to fill *existing roles* (e.g. engineers)

1. Lack of *low-skilled* workers at prevailing wages (e.g. entry level operators)

Important to distinguish general workforce from management

Some evidence about management

- Even though data often limited and some studies by-passed this issue.
- **Productivity studies**- % of labour force with degrees.
- **Matched plant**- compared to Germany, fewer grad managers, less technical, less precision, less control production process.
- **WEF** (but could NI management evaluate itself?)- questions about management schools, R&D services.
- **Scorecard**- no direct measures re. this.
- Was the DETI/DEL/Forfás/InterTradeIreland 2009 study on NI (and RoI) comparative management capacities: NI scored below average against 13 countries re. use of KPIs and business plans. (Estimated if improved “score” to German-Swedish-Japanese level could yield £150m-300m of extra annual output.)



Part 4

Implications for future research/policy

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Onwards and upwards?

Some good news

- The understanding of NI's comparative competitive performance has improved over the 60+ years.
- But still some gaps in our knowledge:
 - How R&D varies by firm type?
 - How important, if at all, is NI's apparently high "happiness"?
 - Need to allow for NI's (political/administrative) governance weakness.

Some things we have not been able to consider

- Work force sickness and absenteeism.
- Industrial relations generally, strikes in particular.
- Impact of migrant labour (from EU perhaps relatively highly skilled even when in low skilled roles).
- Quantity and quality of physical capital stock (NI K/L probably < GB.).

With particular reference to today's subject area

Need to:

- Focus on the qualitative aspects of the skills and experience of the general labour force.
- Up-date the 2009 management metrics.
- Determine how all of this “fits” with the latest iteration in official thinking re. competitiveness- Department for the Economy's (2017) implied preference for comparisons to a peer group of 8 successful small economies: Singapore, Republic of Ireland, Denmark, Finland, Scotland, NI, New Zealand, Israel and Estonia.

Some conclusions

- Brexit notwithstanding, competitiveness (low productivity) remains NI's greatest single, strategic economic challenge.
- Attention, rightly, has been given to general skills.
- But NI management remains under-researched and “under-policied”. *Note how the strong criticism of NI business managers/owners in Isles and Cuthbert led to that report being delayed for several years (and then “shelved”). The 2009 “McKinsey/LSE-based” study has yet to be repeated.*

Thank you
Looking forward to Questions
and discussion

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Appendix

NI long run manufacturing comparative productivity

NI/GB %	19-12	19-24	19-30	1949	1958	1963-73	1973-85	1980-92	1997-2007	2008-2012
Net output per worker*	79	68	62	71	68	84	81	82	99	93

*Until 1973, GVA per worker thereafter.



Data from Isles and Cuthbert (1957), Hitchens, Wagner and Birnie (1990), PwC August 2015, *Economic Outlook*.

Recent skills measures

From OECD (2017) *Economic Survey UK*

% of the labour force qualified to at least this level in 2014

Secondary NI 76% compared to best UK region (Greater London) 87%

Tertiary NI 36% compared to best UK region (Greater London) 55%.

WEF 2012-13 rankings re. educ and training

	NI ranking out of 145 (1= best)
Secondary educ. enrolment	60
Tertiary educ. enrolment	22
Quality of educ. system	30
Quality of maths and science educ.	23
Quality of management schools	46
Internet access in schools	29
Availability of R&D services	55
Extent of staff training	33

Results of the 2009 management study

Rankings: highest= “best”

Ranking based on average score across management practices	Mean management practice score (average= 2.92)
US	3.3
Germany	3.17
Sweden	3.16
Japan	3.15
France	2.99
Italy	2.98
GB	2.97
Poland	2.88
NI	2.85
Republic of Ireland	2.77
Portugal	2.74
Greece	2.64
China	2.63
India	2.60