NERI Research inBrief

June 2013

The Productivity Puzzle and Northern Ireland

Paul Mac Flynn

ISSN 2009-5848

SUMMARY

Since late 2010, the UK economy has experienced a period of stagnating output coupled with improvements in the levels of employment. This counterintuitive situation has been dubbed the "productivity puzzle" and economists have struggled to explain it. It seems no one factor can explain this paradox in full, and the evidence for some explanations is mixed. This *In-Brief* seeks to evaluate the explanations that have been put forward so far, and to examine what extent these features can be identified in the Northern Ireland economy. Equally important however is the extent to which the factors that explain this current conundrum are temporary or more persistent as this will have significant implications for current policy making.

KEY POINTS

- The productivity puzzle describes a situation since late 2010 where the UK has experienced low growth and improving employment levels
- The possible or probable causes of this puzzle are many and diffuse
- Reduction in hours worked has been a significant factor in reduced productivity
- Lack of investment has reduced capital productivity
- Sectoral shifts away from high productivity industries may be a factor
- How we measure growth and investment needs to be examined
- It is still not clear if this is a temporary or permanent shift in the economy. The outcome will have significant implications for policy in Northern Ireland and beyond.

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Nevin Economic Research Institute (NERI)

31/32 Parnell Square
Dublin 1
+ 353 (1) 8897722

e-mail: *info@ NERInstitute.net*
Web: *www.NERInstitute.net*

Carlin House
4-6 Donegall Street Place
Belfast
BT1 2FN
Northern Ireland
+ 44 28 90247940

NERI Nevin Economic Research Institute

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Introduction

The UK along with most western economies suffered a significant drop in output and employment since the financial crisis of 2008. In the UK this resulted in two periods of recession in 2008/9 and then again in 2011. During the first period of recession, falls in output were accompanied by reductions in employment. The reductions in the latter were not as severe. The drop in output over the recession was over 6% while the reduction in employment was just 2%. As previous recessions have extracted a higher toll from employment, the comparatively positive performance of the UK labour market could be attributed to labour market flexibility. The second recession which occurred in 2011 exasperated this dynamic in the economy. Output fell by 0.6% while employment actually increased by 1.2%.

At the present time, the UK economy has narrowly avoided a third phase of recession, but despite small movements up and down, output can only be best described as stagnant. The same cannot be said of the labour market. While there have been fluctuations, the current trend of employment is upward.

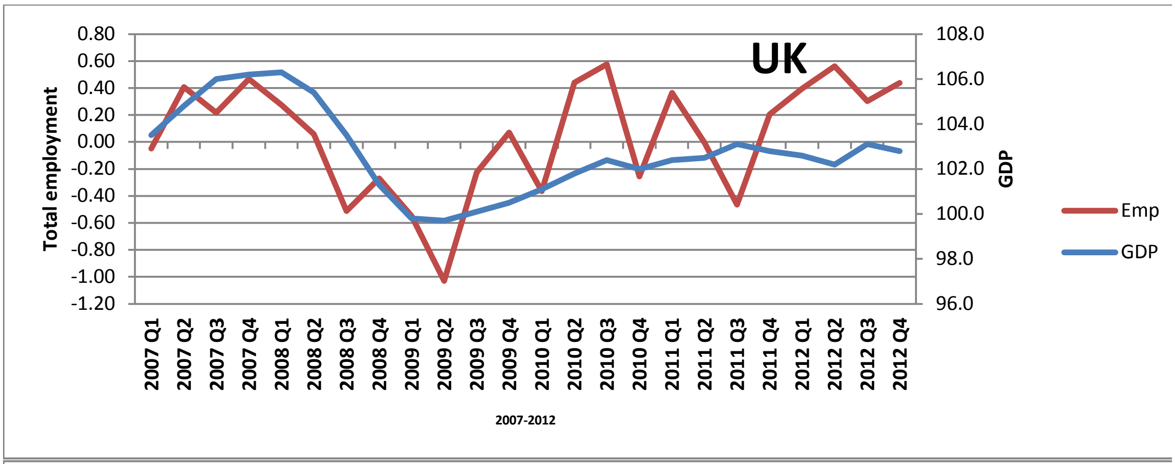
In Northern Ireland, it is more difficult to identify recessionary periods owing to the absence of regionally available quarterly GDP data. Gross Value Added is the closest comparator of GDP available in Northern Ireland. Latest figures for 2011 show that since 2007, output has fallen over 2% in real terms, while the numbers in employment remain exactly the same. Once again this does not imply the absence of any crisis in the labour market, quite the opposite, unemployment over the same period has more than doubled from 34,000 in 2008 to 72,000 in 2013. The recently produced Northern Ireland Composite Economic Index (NICEI) uses existing measures of services and production along with measures of public sector output. While not an exact comparator for GVA, it does provide a more up to date picture of the Northern Ireland economy. The NICEI identifies an even larger fall of over 9% (NISRA, 2013) for the same period

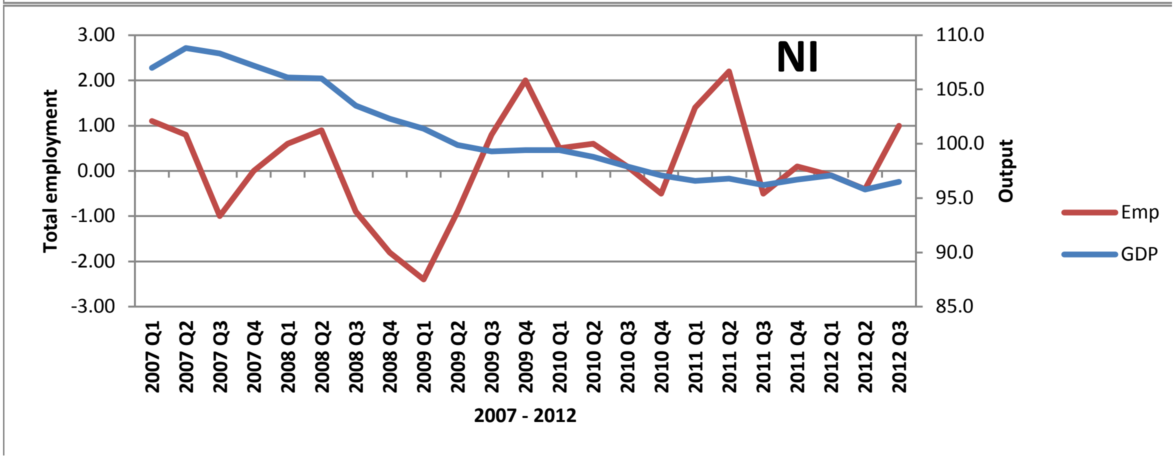
What these output and employment trends would seem to indicate is a fall in productivity for the economy as a whole. Productivity is usually measured as the ratio of output to workers, and this ratio has decreased. However output/worker is not the only measure of productivity and this becomes clearer in the following discussion. What is apparent is that research needs to examine the causes of this current situation and whether they will be self-correcting or whether they signal a structural shift in the economy. Of the many factors put forward to explain the productivity puzzle, three broad headings emerge, labour, capital and sectoral.

Labour

One way of accounting for a reduction in productivity is through reduced labour productivity. However on closer examination the increases in employment over the last 4 years are not exactly what they appear. According to the ONS, the number of hours worked fell by almost twice as much as employment and this gap remains. This implies a significant increase in part-time employment and reduced hours such as three day weeks. This would imply a great deal of flexibility within the labour force and suggest that contrary to previous recessions, employers have been reducing hours rather than employees in order to adjust to changed economic circumstances.

However this will have impacted on the productivity as measured by output per worker. If we measure output per hour the fall in productivity at UK level is significantly reduced, but not eliminated, it remains 2.5% below pre-recession levels (ONS, 2013). So while a large chunk of lost productivity can be explained by reduced hours, a sizable portion remains to be explained. It is also worth emphasising that while greater labour market flexibility may have resulted in fewer job losses than were expected, it is not altogether a positive step. Since 2008, the number of people in Northern Ireland working in a part-time position because they could not find a full-time position has increased from 21,000 to





45,000 in 2012. This suggests a substantial increase in underemployment, which should be a cause of much concern for the labour market.

The ONS have also suggested that that supply issues could be constraining the economy, including the loss of human capital from those who have experienced long bouts of unemployment. This is a particular danger for young and inexperienced worker (see discussion in NERI, 2013).

Many suggest that the reduction in real wages has led to labour underutilisation or labour hoarding. It may be the case that the reduction in real wages has allowed employers to retain workers in the expectation that demand will pick up. This would imply that there would be some tipping point at which employers could no longer afford to retain this labour if there is no substantial prospect of recovery in the near future. This would then lead to a new unemployment crisis as firms adjust to economic realities.

The Institute for Fiscal Studies disputes this and claims that the increased employment levels are due to strong flows into employment as well as decreasing flows out is due as much to increased inflows into employment as it is to reduced outflows (IFS, 2013). This analysis was also cited by the Bank of England in the November 2012 inflation report (BOE, 2012).

Capital

The significant decrease in investment in the UK economy since the crisis is viewed by many as a cause of stagnant growth and the resulting reduction in productivity. The reduction in investment could be caused by the increasing price of capital. Small firms find it difficult to access bank finance, but large firms hoard cash. The reduction in capital investment will lead to a reduction in capital productivity. If a firm does not purchase new machines that would enable more efficient production, overall productivity will decrease.

Firms may find it less risky to retain workers than to invest in costly new machinery. This may lead to increases in employment, but less productive workers. While figures for the UK bear out the decrease in the standard measure of investment, many questions remain about what exactly counts as investment and how it is measured.

Recent research (Goodridge, Haskel & Wallis, 2013) finds that if investment in intangibles like research and development is included in overall investment, total factor productivity has not decreased by 1% but rather increased by 0.1% since 2008. This would also have increased GVA by 1.1%. This could be significant in Northern Ireland, where research and development expenditure increased in real terms by 9.2% between 2010 and 2011 (NISRA, 2012).

This is reflected in recent revisions to the calculation of GDP in the United States which will increase GDP in July 2013 by 3%. (BEA, 2013). The same is planned for the UK economy (Edgworthy & Wallis, 2006) but this will be applied retrospectively and could alter the previously accepted performance of the economy.

Sectoral

The final set of explanations covers the consequences of sectoral shifts within the economy. Looking at the output of sectors of the economy over the last number of years, the UK has seen a decrease in output from highly productive industries like manufacturing and mining, alongside an increase in output for government services (ONS, 2013). This would lead to a reduction in output overall with improved employment prospects, but damage overall productivity.

In Northern Ireland it is not possible to tell at this stage what sectoral shifts have taken place. GVA statistics by industrial classification are only available up until 2012. Most of the fall in productivity has taken place since then. It is also questionable whether the sizes of high productivity sectors in Northern Ireland are enough account for such an impact.

Conclusions

No one factor emerges from this analysis as a silver bullet to explain what is a counterintuitive economic situation. However given the unsustainable nature of this situation, policy and policy makers in Northern Ireland need to give it greater attention.

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