

Policy insights for Scotland from small advanced economies



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This report has been published by Reform Scotland in association with the Scottish Policy Foundation.

June 2018

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Foreword

Whatever the future holds for Scotland's constitutional status, all sides agree there is a pressing need to improve the performance of the nation's economy. The challenges the nation faces in the coming years – challenges of demography, of adequately funding public services, of technological progress, of adapting to the consequences of Brexit – all require us to think innovatively, and urgently, about how we can strengthen our economic performance.

In this report, David Skilling examines how other small advanced countries, which have much in common with Scotland, are making the most of their resources. Small countries often out-perform their larger counterparts, with higher per capita incomes and greater GDP growth. Many of them also provide higher-quality public services. Although most of them are independent countries, Skilling argues that they nevertheless face limits on their policy autonomy due to geopolitical pressures. He examines how Scotland, which in most measures lags behind the comparator states, might use its existing economic powers under the devolved settlement to make progress.

While there is no magic wand that can be waved to bring Scotland's productivity up to speed, there are steps that will put us on the right path. Ensuring tax levels are competitive is one, increased investment in R&D is another, enhanced efforts and engagement on the international scene yet another. And, as Skilling writes, 'Upgrading human capital, enterprise and innovation should also be a priority.'

There is a danger that the fierce constitutional debate in Scotland crowds out other matters which are every bit as important and which have a real impact on the lives of people living here. Nicola Sturgeon has laid some bold bets on the economic front in recent months, announcing the creation of a National Investment Bank and a state energy company, trials of a universal basic income, and introducing a series of new income tax bands and rates. Whether you agree with all or any of those policies, it's welcome that the First Minister is using the devolved powers at her disposal to make a difference.

The Government could do more, of course, and to that end ministers and civil servants would be advised to give David Skilling's report a close read.

Chris Deerin
Director, Reform Scotland

Executive Summary

This note considers how Scotland can use its devolved economic policy powers to strengthen its economic performance. It draws on the international experience of small advanced economies around the world to provide insight on the priorities for action. This is a group of economies that has much in common with Scotland.

Although these comparators are largely independent countries, they experience meaningful constraints on their effective policy autonomy. Small economy policy options are shaped by their deep exposure to global dynamics, such as QE, international competition and geopolitical forces, and they face disciplines from capital markets in ways that larger economies do not. And for small economies in the EU, policy autonomy on trade, migration and in other policy areas, is also constrained. Scotland has a particular constitutional situation, but it can still learn from other small advanced economies.

Small advanced economies have a strong record of economic performance over the past few decades. On average, they have higher per capita incomes than larger economies, and have generated stronger GDP growth rates. In addition, they generate stronger outcomes in a wide range of other areas, such as social and educational outcomes.

This strong small economy performance is based on several factors: a supportive international economic and political environment, strong intrinsics (public institutions, social capital), and high-quality policy settings. There are some common policy themes across successful small advanced economies (such as solid macro policy, a high-quality business environment, and investment in human capital and innovation), but there is not a single small economy policy template. A key distinguishing feature is that they frequently act to position their economies to compete in a coherent way.

This includes responsiveness to a changing strategic context. And there are several dynamics at work currently that will shape the environment for small advanced economies – and to which these economies, and Scotland, will need to respond. These include a growing intensity of global competition, a more complex and challenging international economic and political environment, and the emergence of disruptive technologies such as automation and AI.

The international small economy experience provides a perspective on policy priorities for Scotland. On fiscal policy, setting tax policy in a way that improves competitiveness as well as strengthening fiscal institutions to exert more control over government spending and the fiscal balance. Upgrading

human capital, enterprise and innovation should also be a priority: Scotland has a base to build on, but there are gaps compared to many other small economies. And a stepped-up focus on strengthening Scotland's international engagement, the productivity engine of small advanced economies.

Scotland's economic performance has lagged that of other small advanced economies. But there is scope to strengthen Scotland's competitive position using its set of devolved powers through deliberate policy action.

Introduction

Relative to a decade ago, Scotland has a much broader range of devolved policy powers. Drawing on the international small advanced economy experience, this note offers a perspective on policy priorities to strengthen Scotland's competitive position in the context of the current set of devolved powers.

This paper is structured as follows. Part I introduces the small advanced economy group, and notes why small economies are a useful comparator group for Scotland. Part II then benchmarks Scotland against small advanced economies to provide a sense of relative strengths and weaknesses in Scotland's performance. Part III describes several emerging dynamics that are generating challenges and opportunities for small advanced economies around the world, from disruptive technology to changes in globalisation. On the basis of this analysis, Part IV suggests a series of policy implications for consideration in Scotland.

I. Introducing small advanced economies

To understand Scotland's economic performance and the priorities for action, it is important to develop an appropriate international comparator group. Context matters importantly in understanding the behaviour and performance of economies, and the available policy choices. One contextual factor that matters importantly, in addition to factors such as resource endowments, physical location, and economic structure, is economic scale.

Small economies are not simply scaled-down versions of larger economies: just as Denmark is not like Germany, or New Zealand like Australia, so Scotland has a series of different properties than the overall UK – and these differences should be taken seriously. There are three ways in which smaller economies differ systematically from larger economies.

First, small advanced economies are significantly more exposed to global economic and political developments. Their relatively high export shares mean that they are exposed to the strength of the global economy as well as to external competitiveness shocks to key firms and sectors. They tend to experience more economic volatility as a consequence; are more subject to discipline from capital markets; and are acutely exposed to large country decision-making, from quantitative easing to protectionism. The performance of small economies is shaped to a much larger extent by external developments, both positive and negative.

Second, small advanced economies need to be more deliberate about creating competitive advantage in their economies relative to larger economies. Outside of natural resource endowments, competitive sectors with critical mass are less likely to emerge spontaneously in small economies. And small economies are more exposed to the forces of agglomeration from large economies. In response, small economy governments have to be clear about how competitive advantage is to be developed. Simply being a well-managed economy is generally not enough to generate and sustain competitive advantage, as may be the case in larger economies.

Third, there are series of constraints on the policy options available to small advanced economies. For example, small economies have less ability to engage in large-scale fiscal stimulus – because of tight capital market disciplines on the size of the fiscal deficit, as well as the reduced effectiveness because of the higher import share. And there are limits on the extent of independence in monetary policy: for example, small country exchange rates have been driven by large country monetary policy over the past several years rather than domestic circumstances.

More generally, policy autonomy is always constrained in a globalised world. For example, EU membership constrains freedom of policy action on trade policy, competition policy, migration, and so on. Policy autonomy is a matter of degree, not a binary state.

This means that, although Scotland remains part of the overall UK, small advanced economies are a particularly useful benchmark group for Scotland, both to benchmark economic performance as well as to compare policy settings. Although these small countries are different in many ways, the underlying similarity in external exposures and policy options means that there are common policy themes that are distinctive to the small economy group. And Scotland shares many similarities in the nature of its exposures and the available policy options.

In this analysis, I define small advanced economies as IMF advanced economies with populations of between 1 and 20 million people, and that have a per capita income of more than USD30,000. This generates a group of 13 small advanced economies that I use to identify insights for Scotland. These economies provide a good sample of geographies, economic structures and sizes, and also illustrate common small-country themes. I will also reference Northern Ireland and selected other ‘sub-national units’.

Small economy performance

This group of small advanced economies have out-performed their larger economy counterparts on a consistent basis over the past several decades. Since 1990, GDP growth rates have been higher than a 10-strong comparator group of large advanced economies by about 0.9% a year. This superior performance has been maintained through the more challenging post-crisis period over the past several years.

Small advanced economies also dominate the rankings of per capita income (even excluding small countries like Luxembourg and the Gulf States). Eight of the top ten economies by per capita income are small; the median per capita income of the small advanced economies in 2017 is \$48,300 compared to \$39,800 in the comparator large economy group.

Small economies also perform well on broader measures of performance. Small economies tend to have relatively high labour force participation rates and low unemployment rates; have high measures of education and skills; rank well in terms of various measures of social development, quality of life, and trust; and so on. From the Nordics to Singapore and New Zealand, small economies frequently top international rankings on a wide range of social outcome measures.

There are a few reasons for this sustained small economy success. First, the supportive nature of the international economic and political environment. The process of intense globalisation from the early 1990s and relatively strong global growth has been helpful for small economies that are particularly reliant on external demand. For small economies in Europe, the process of regional integration through the EU has been particularly helpful in allowing them to scale up into larger markets – and overcoming the constraints of a small domestic market.

The second factor is small economy intrinsics. Small advanced economies tend to have high-quality public institutions as well as relatively high levels of social capital and trust. This makes it more likely that small advanced economies can develop and sustain high-quality policy settings, and that they can respond quickly to shocks and changes. Small economies have reputations for policy innovation and responsiveness.

Third, the nature of the policy choices that are made. Although there is no single specific policy model across successful small economies – the Nordic model is quite different from Singapore or Ireland, for example – there are some common policy themes. These include:

- High-quality policy foundations: for example, an efficient, competitive business environment that allows for firms to expand; a disciplined approach to fiscal policy; and well-functioning monetary policy (for small countries that have an independent monetary policy).
- Investment in human capital and innovation: a high-quality compulsory education system, investment in vocational and ongoing education, high-quality research universities. This has provided a competitive edge, while also helping small economies to effectively manage the disruption from globalisation and technological change.
- Strong focus on supporting international engagement: formal economic integration (through regional bodies like the EU or a portfolio of free trade agreements), export promotion activities, connective infrastructure, and so on.

In addition to these specific areas of policy focus, one distinguishing feature of successful small economies relative to larger economies is the sense of deliberateness. There is a strategic coherence to their various policy settings, with a clear sense as to how small economies will position themselves to deliver competitive advantage. This strategic coherence gives small advanced economies a performance advantage relative to larger economies.

II. Benchmarking Scotland against small advanced economies

This group of small advanced economies is an instructive comparator group for Scotland for the reasons described earlier.

In terms of per capita income, Scotland is at the bottom of the small advanced economies group, just below the full UK. I estimate Scotland's GDP per capita to be US\$39,337 in 2017 (using 2017 Scottish National Accounts data¹), currently about 81% of the small economy median country (the Netherlands).

However, compared to many other regions in the UK, Scotland performs well. For example, Scotland's gross value added (GVA) per capita is 25% above that of Northern Ireland. The only regions in the UK with a higher GVA than Scotland are London and the south east of the UK. Scotland's GVA per capita, expressed in nominal terms, is about 93% of the full UK.

In terms of GDP growth, Scotland has tracked UK GDP growth reasonably closely over much of the past two decades – with the marked exception of the past few years when Scotland's GDP growth has weakened sharply. However, there has been a consistent gap between Scotland's GDP growth rates and that of other small advanced economies. This has led to a steady divergence in Scotland's per capita income from that of other small advanced economies. Since Q1 2000, Scotland's GDP growth has averaged 1.4%, near the bottom of the small advanced economies group.

This gap is particularly apparent since the end of 2016, when small economy growth rates picked up markedly as a broad-based global economic recovery has taken hold. Indeed, small advanced economies are front-running the broad-based global economic recovery.

Part of Scotland's recent GDP growth weakness is due to the slowdown in the oil and gas sector (Norway has also suffered). And Scotland's relatively deep exposure to the rest of the UK, which has under-performed the rest of Europe by a significant margin over the past few years, is also a drag on performance.

Scotland's relatively low per capita income is largely a labour productivity story. Scottish Government estimates are that labour productivity (on an hours-worked basis) is 96% of that of the full UK, which places Scotland towards the bottom of the small economy average. The contribution from hours worked per capita is in line with the small economy average. More encouragingly, about

¹ <http://www.gov.scot/Topics/Statistics/Browse/Economy/QNAS2017Q4>

Note that using National Accounts data, which uses a different methodology, Scotland's GDP per capita was 99% of the full UK in 2017.

70% of Scotland's 1.4% average GDP growth rate since 2000 has come from labour productivity growth – which is also in line with comparable small advanced economies.

In small advanced economies, a key driver of productivity performance is the export sector. This is the part of the economy where firms can deliver productivity growth by getting to scale in international markets. Indeed, productivity in externally facing sectors in Scotland (such as manufacturing) is reported to be relatively high. Scotland's export share is in line with other small advanced economies when calculated as a stand-alone economy. Exports to the UK are about 30% of GDP and exports to the rest of the world account for another 20%, for a total of around 50% of GDP.

This export share is in line with several other small European countries. This relatively good level of exports is not surprising given that there are no impediments in exporting to the rUK – and Scotland has full access to the EU Single Market – for now.

And consistent with the international experience, there has been a marked pick-up in Scotland's export growth over the past year, both to the rest of the UK and to the rest of the world. Scotland's export sector is performing better than its domestically-oriented sectors.

However, Scotland has a large trade deficit with the rest of the UK, at about 25% of its exports to the rest of the UK (or about 7.3% of GDP in the year to Q3 2017). Scotland's trade position is in balance with the rest of the world. This contrasts with many well-performing, competitive small economies that have sustained positive trade balances.

Overall thoughts

Scotland has many of the characteristics associated with success in other small advanced economies: notably institutions that support research and innovation, successful externally oriented sectors and firms, strong public and social institutions, high levels of inward FDI, and so on. But its per capita income and GDP growth rates remain well below the small economy average.

Scotland has a good foundation on which to build, but clearly there are gaps between where it is and where it can reasonably aspire to be. Among other things, this suggests that upgrading Scotland's productive potential should be a priority. The next sections discuss what Scotland can learn from other small economies as they have also worked to strengthen their competitive positions.

III. Emerging issues for small advanced economies

Small advanced economies have performed strongly on a wide range of economic and social dimensions over the past few decades. But there are several material changes underway in the global economy, which will shape the outlook for small advanced economies.

Small economies have a long record of responsiveness and resilience in the face of change, and will need to respond effectively to several emerging challenges and opportunities in order to sustain their strong performance into the future. Those that do not may fall behind. This will be the case for Scotland also, and so before drawing out policy implications for Scotland, it is important to think about the key dynamics underway in the changing economic and political environment.

I identify three broad clusters of issues to which small economies need to respond: changes in the functioning of the global economy, particularly on the supply side; the emergence of disruptive technologies; and risks to an open, rules-based global trade and investment system.

Intense competition

Small economies have high export shares, and are highly exposed to the state of the global economy – both in terms of the strength of total external demand, as well as by the intensity of competition from firms in other economies. These demand-and supply-side dynamics have a particularly strong impact on the performance of small advanced economies: the external sector is the engine for productivity growth; and small economies tend to have a limited number of areas of competitive advantage in global markets.

Over the past few decades, global growth has been strong – with global trade and investment flows growing strongly as well – which has supported small economy performance. This has also coincided with more intense global competition. In particular, the integration of large emerging markets in Asia has changed the competitive landscape fundamentally. China's share of global exports has moved from about 3% in 2000 to over 10% today. Combined with improvements from other emerging markets, including in central and eastern Europe, the level of competitive intensity in global markets has increased.

This is one reason why manufacturing shares have reduced sharply across advanced economies over the past few decades (particularly expressed in terms of employment, but also in terms of GDP). The wage and cost structures challenge the competitive position of manufacturing, except when there was something highly distinctive about the manufacturing activity. However, the

decline in manufacturing shares was a little less marked in small advanced economies – where much of the manufacturing activity was externally-oriented, and where there was frequently a strong competitive advantage (such as a strong research and innovation base).

And now many emerging markets are moving rapidly into relatively knowledge-and technology-intensive activity, providing additional sources of competition. As one example, consider China's recent 'Made in China 2025' plan in which it aims to develop strength in several advanced sectors. This greater competitive intensity in knowledge-intensive activities in which small advanced economies have typically had strong positions will have an impact on the competitive positions of small economies.

Given the frequent concentration of small economy exports in a relatively small number of export strengths, a loss of competitive strength could have a disproportionate effect. The impact of Nokia on Finland's economy is one example of what can happen in a small economy if there is a major shock to an important sector.

In this context, there is ongoing pressure on small advanced economies to maintain and strengthen their competitive advantage. This can be seen on a range of dimensions: many are upgrading their investments in research and innovation, as well as in human capital; there is ongoing downward pressure on top personal and corporate tax rates; and efforts are underway to improve the business environment (infrastructure, cost structure, and so on). The relatively high cost structures in many small advanced economies mean that there is a need to have commensurately high labour productivity levels.

Changes to the international economic and political system

Small advanced economies have benefited disproportionately from an open, rules-based international economic and political system over the past several decades. This has happened at a global level through successive rounds of trade liberalisation through the GATT and WTO, as well as through regional integration and FTAs. Combined with substantial improvements in transport and communications technology, this has supported an intense process of globalisation over the past few decades.

This has reduced the importance of economic scale, by allowing firms from small economies to expand more readily into foreign markets without discrimination (tariffs and other barriers) as well as providing a stronger measure of geopolitical stability. And for European countries, the deep

integration process in the EU single market has further reduced the importance of national scale.

But over the past few years, a series of risks has emerged to this system. This is as a consequence of domestic political pressures arising from the disruption caused by the exposure of domestic economies to flows of trade, capital and people. This is complicated by emerging strategic economic and political rivalry between China and the US (and increasingly Europe).

As part of its America First approach, the US has withdrawn from TPP, put the US/EU agreement on hold, and is renegotiating NAFTA. And in the first quarter of 2018, US tariffs on imports of steel and aluminium were imposed (followed by widespread exemptions) and a series of trade sanctions on China have been unveiled. More are likely. And China continues to act in a mercantilist way, making it challenging for foreign firms to operate in China and undertaking aggressive industry policy to create national champions. Both the US and Europe are acting to impose various restrictions on Chinese investment into their economies.

In addition, there is an increasing intersection between economics and politics – to which small economies are exposed. From sanctions on Russia, to the use of national security provisions in the imposition of US tariffs, there is a growing relationship between the nature of bilateral economic and political ties. China provides examples of this also, imposing sanctions on countries with which it has political disagreements – from exports of Norwegian salmon to South Korean tourism. These behaviours create exposures for small economies, particularly those that are outside groupings like the EU.

There are some positive developments. The EU has progressed FTAs with Japan and Canada, and is now negotiating with Australia and New Zealand. And the TPP-11 (without the US) was formally signed in Chile in March. And global trade flows have held up well so far, currently growing at around 5%, the fastest rate since 2011.

But overall, there are significant risks to the global economy from the outbreak of trade and economic tension, which could establish barriers to cross-border trade and investment flows. There are also geopolitical dimensions, with small economies increasingly focused on integrating into broader political and security alliances in order to improve national security (note the debates in Finland and Sweden with respect to NATO membership). Overall, the global environment for small advanced economies is becoming more complex and challenging.

Disruptive technologies

New technologies, from automation to AI, will have a disruptive effect on advanced economies around the world. These emerging technologies are likely to have a profound impact on GDP and productivity growth, labour markets and income inequality, as well as leading to significant changes in the competitive positions of firms, sectors and economies.

There are clear opportunities from this technology, as there have been with previous waves of structural transformation. In recent analysis, the McKinsey Global Institute estimates that digitalisation could play an important role in lifting labour productivity growth to 2% within the decade, a marked lift from the productivity growth rates of around 0.5% that have been observed since 2010.² And parallels have been drawn between these emerging technologies and the introduction of previous general purpose technologies.

However, this will likely have highly disruptive effects on economies and on labour markets. The McKinsey Global Institute estimates that up to 30% of all tasks could be disrupted by automation alone by 2030, with a mid-point of 15%. These technologies are complementary to higher skills profiles, and will have a more disruptive effect on routine, lower-skill work. Combined with potentially higher rates of return on capital, this could lead to a sharp rise in income inequality.

Small advanced economies are well-placed to capture benefits, and to manage the risks from this process. These technological advances offer a powerful way to strengthen productivity-led growth in small economies, which is vital to respond to intense competitive pressures and aging populations. There are particular opportunities for small advanced economies in strengthening the competitive position of their externally oriented sectors, which are disproportionately important to the economic success of small economies. And over time, some of these technologies offer a way of significantly lifting the relatively low levels of labour productivity in the domestically oriented sectors. These benefits are at least as substantial for small economies as for large economies: these technologies do not advantage scale.

The World Economic Forum recently noted that ‘Scale is not a prerequisite for future readiness. Economic complexity is more important than scale for readiness for the future of production. The ability to gather, combine and use knowledge embedded in people and technology to create a range of unique products will become an increasingly important competitive advantage. Thus,

² McKinsey Global Institute, ‘Solving The Productivity Puzzle: The Role Of Demand And The Promise Of Digitization’, February 2018; McKinsey Global Institute, ‘Jobs Lost, Jobs Gained: Workforce transition in a time of automation’, December 2017.

small countries such as Switzerland or Singapore are not necessarily at a disadvantage against global giants with larger scale.’³

Indeed, many small advanced economies have a series of distinctive characteristics that position them well to capture the benefits and to manage the risks and challenges from the deployment of these technologies. In particular, strong absorptive capacity (broad-based human capital, innovation capacity, firm capability); a supportive policy and regulatory environment (social insurance, active labour market policy, as well as specific Industry 4.0 and digital initiatives); and weakening growth in the labour force, which creates an incentive for investment and reduces some of the costs of the disruption. Several other recent studies also identify small advanced economies as being well-placed.

Overall, these technologies are seen as a way of sustaining a competitive advantage in manufacturing; manufacturing shares have held up reasonably well in small advanced economies – because of ongoing investment in innovation and because of the competitive disciplines imposed by exposure to external markets.

³ World Economic Forum, Future of Production, 2018.

IV. Implications for Scotland

These dynamics – particularly when coupled with the relatively sluggish economic growth of the post-crisis period – have generated pressure for policy innovation in small advanced economies. These are areas of live policy debate and action across the small economies group at the moment, with significant amounts of policy innovation. These issues are also relevant to Scotland.

Given this international context, what are the implications for Scotland given the current set of arrangements with respect to devolved powers? What is Scotland able to do that would raise its economic performance on a sustained basis?

Drawing on the international small economy experience, there are three related policy areas that would contribute to strengthening the competitiveness of the Scottish economy. This section discusses policy insights with respect to fiscal policy; enterprise and innovation; and international engagement.

Fiscal policy

Scotland has recently used its devolved power on personal income tax for the first time, to alter the marginal personal tax rates slightly. The Government has also announced plans to replace the air passenger duty to encourage international connectivity from Scotland. The international experience suggests three areas in which Scotland could reform fiscal policy in order to strengthen its competitive position.

First, one of the key lessons from the international experience is the importance of fiscal institutions that allow for control to be exerted over the fiscal balance and for high-quality resource allocation choices to be made (so that spending choices are made in line with strategic priorities, and that value for money is generated). Delivering strong fiscal outcomes – both in the aggregate, and in terms of the quality of choices made – requires an investment in establishing high-quality budgetary and fiscal institutions.

This is particularly important in the context of a challenging economic and fiscal context for Scotland, and where there are emerging challenges – such as the fiscal costs of an aging population and the potential for higher economic volatility. Strong fiscal institutions will also become increasingly important in Scotland as additional fiscal powers are devolved.

Actions in this respect include institutions that require the government to articulate a clear fiscal strategy (with targets), a disciplined budgetary process with a central role for the Minister of Finance, transparent fiscal reporting, and

structured programmes of evaluation of spending programmes. New Zealand's Public Finance Act provides a good example in terms of what a good set of fiscal institutions looks like in a small economy context. Scotland's Fiscal Commission provides a good base to build on in terms of economic and fiscal forecasting and assessing the government's fiscal behaviour against fiscal targets.

A second priority is to ensure that tax rates remain in line with those in other small advanced economies. The average (headline) corporate tax rate in small advanced economies has been reduced from 28% to 23% since 2000; and the top personal marginal tax rate has been lowered from 47% to 44% over this period. These actions have been taken to create incentives for firms and households to work, save and invest – and to ensure that the specific small economies remain an attractive location for people and firms. Small economies are particularly exposed to these competitive pressures, and have moved slightly faster in reducing tax rates.

This dynamic is likely to continue. The recent US corporate tax rates place stronger pressure on this dimension. And Northern Ireland has announced a reduction in corporate tax rates to 12.5% to allow it to better compete for FDI with the Republic of Ireland.

Downward pressure on tax rates over time can make a contribution to strengthening Scotland's competitive position. But Scotland does not have devolved powers to make changes to corporate taxation as Northern Ireland has; and there are constraints on material reductions in personal tax rates in terms of worsening the sustainability of Scotland's public finances. In any case, sharply lower corporate or personal tax rates are unlikely to be at the core of Scotland's economic value proposition in the way that is the case in Ireland and Singapore. However, the trend across small advanced economies towards developing a broader tax base to take the weight of various income taxes is relevant. In many countries, there is a growing reliance on consumption taxes, and various taxes on real estate. Singapore has just announced an increase in GST (Goods and Services Tax), and New Zealand simultaneously lowered personal tax rates and raised GST several years ago. Although Scotland cannot currently alter the VAT rate, the general lesson is to look for opportunities to broaden the tax base – allowing for a reduction in taxes on productive activity. Reform Scotland has recently issued a note arguing that VAT be devolved to Scotland after Brexit takes place.⁴

⁴ Reform Scotland, 'The VAT opportunity', April 2018.

Third, on the spending side, there are some priorities to improve Scotland's competitiveness. Some of these will be discussed below, including research and innovation, human capital, and enterprise policy. There is also potential to think creatively about the use of the government balance sheet. The recent establishment of the development bank to expand the supply of risk capital to growth firms is one example (similar initiatives can be seen in other small advanced economies).

Upgrading human capital, enterprise and innovation

Central to the value proposition of many small advanced economies is sustained investment in human capital and innovation. Small economy governments were effective in supporting investment in R&D and human capital, directly and indirectly, which has underpinned the successful upgrading of small advanced economies over the past decades. This is both a key way to drive productivity growth as well as supporting inclusive growth, allowing for a large share of the population to participate meaningfully in capturing economic opportunities. This is particularly true across the small Northern European countries, such as the Nordics.

The rapid emergence of disruptive technology will place additional pressures on policy in this space. As noted above, in general, technologies such as automation and AI offer potential to significantly raise productivity growth. But to fully capture the potential from these new sources of growth, and to manage the associated risks, particularly the disruptive effects on labour markets, will require a deliberate policy response. There are several classes of policy response that are particularly important in this regard, including investment in research and innovation, enterprise policy, and human capital development.

On research and innovation, many successful small advanced economies spend significant amounts on R&D (both governments and private sector firms). The small economy average for total R&D spending is 2.5% of GDP, and countries like Switzerland, Israel, Austria and Sweden are above 3% of GDP. And countries such as Singapore are making rapid advances.

The data for Scotland shows that it is in the bottom third of the advanced economies group in terms of total R&D spending, at 1.5% of GDP in 2016. This partly speaks to the economic and company structure of Scotland; a relatively small base of manufacturing and a relatively small number of large firms. The R&D spending in higher education institutions, however, is relatively high: Scotland ranks 5th in the OECD on this measure. In terms of both the level and composition of Scotland's R&D spending, there are some parallels with New Zealand.

However, to transform economic performance, investment in new ideas and products are important – and increasingly so given intense global competition. A wide range of policy levers are deployed across advanced economies, including increased public investment as well as financial incentives for business R&D spending.

Of course, it is not just the level of spending that matters. High-quality capital markets and firm capability are also required to capture economic value from the idea. Initiatives like the new Scottish National Investment Bank that allocate risk capital to high growth firms are likely to be helpful in this regard.

Many small advanced economy governments are also focused on building relevant clusters and ecosystems to make this new activity sticky (and hard to replicate), as some types of economic activity may become more footloose. Clusters with critical mass, and sufficient scale and specialisation to generate world-class levels of productivity, are less likely to form naturally in small advanced economies than in larger economies like the US or Germany. Enterprise policy can play an important role in providing a coordination function and helping to develop the clusters that will support firm growth as well as anchor firms in the domestic location as they grow (by developing distinctive capabilities and networks).

Particularly in the context of new technologies and intense competition, it is important that there is a sustained policy focus on strengthening in human capital and skills, both in the compulsory education sector as well as tertiary education, vocational education, and ongoing learning. Scotland's performance, as measured by the OECD's PISA surveys of maths, reading and science, is towards the bottom of the small advanced economy group – indicating that there is room for improvement. There will also need to be a sharper focus on the skills that will become increasingly important: the pace of change may make the mismatch between the supply and demand for particular skills more acute.

Scotland's international economic engagement

Scotland's export share (including to the rest of the UK) is in line with other small European advanced economies, at around 50% of GDP. But for Scotland to converge towards the top half of the small advanced economies group over time, even stronger international engagement will be required. In small advanced economies, the external sector is the part of the economy in which it is possible to get to scale and deliver sustained productivity growth.

In small economies, there tends to be a relatively steep gradient in productivity levels between domestically-oriented sectors (that tend to be low productivity,

constrained by a small domestic market scale with relatively limited competitive intensity) and internationally-oriented firms that operate at global productivity levels (in order to be competitive).

Policies that lift productivity across the domestic economy are important, of course, but many of these policies will continue to be set in London. However, there are opportunities for Scotland to improve the performance of its internationally oriented sectors and firms. There are a range of policy actions that can be made to support international engagement by Scottish firms. The small economy experience offers some insight into the policy options open to Scotland.

To structure this conversation, I note three levels of an international economic engagement strategy for Scotland: firm support, sector focus, and the geographic footprint.

- firm-level

Like many other small advanced economies, Scotland has some internationally oriented large firms as well as a long tail of small firms. Many small firms find exporting costly and risky, particularly to markets that are further away. And a higher level of capability is required, which is why it is the more productive firms that tend to export or invest abroad.

In response, governments commonly undertake export promotion activities. These commonly involve some combination of capability building, financial support, and in-market assistance. Looking across the small advanced economy group, there are some emerging themes in high-performing systems that are instructive for Scotland.

First, there is an increasing focus on high growth potential firms, where there is assessed potential to scale up the firm in an accelerated way. These high growth potential firms will receive intensive, tailored, well-resourced government support, whereas other client firms will receive more generic, ‘light touch’ support. Initiatives like the ‘Focus 700’ in New Zealand and ‘High Potential Start-Ups’ in Ireland are good examples of this approach. Scotland’s ‘Companies of Scale’ initiative seems to share a similar approach.

This is motivated by the international evidence that only a small proportion of new firms grow in a meaningful way. The majority of firms do not grow beyond their initial establishment size. It is this scale-up activity, rather than start-up activity, that makes the contribution to economic outcomes. As some of Scotland’s traditional economic and export engines face pressure (such as oil

and gas), generating a strong pipeline of growing Scottish firms will provide an important source of growth.

The second development is a rotation in the nature of support provided from direct financial assistance towards non-financial assistance. For many firms, the binding constraints on firm growth relate to management capability, market intelligence, access to in-market facilities, advisory services, and so on. Particularly in small advanced economies, firms experience different growth challenges at an early stage of the life cycle. These challenges commonly include: lack of access to early-stage risk capital; lack of management capability; and the costs and risks associated with internationalisation.

This assistance should be joined up across agencies as well and provided in a coordinated way. I note Scotland has recently undertaken an Enterprise and Skills Review.

- sector

As noted above, small economies tend to have a limited number of areas of genuine competitive advantage. Small economies can only support sectors with world-class positions, with critical mass, in a handful of sectors: competitive advantage requires dense clusters with supply chains and labour with specific skills, as well as a broader advisory and financing ecosystem. Given finite public sector resources, some choices will need to be made in terms of how best to prioritise support.

Scotland has competitive strengths in a few areas of its economy: from food and beverage to tourism, to finance, life sciences and renewable energy (in addition to oil and gas). As a first approximation, and allowing for change over time, these sectors provide a focus to policy and fiscal investment, from research and innovation to enterprise policy.

The challenges and opportunities facing different sectors with respect to expansion into global markets will vary. To better focus efforts on the binding constraints on growth, several small economies have recently adopted sector-based policies. Recent examples include the Industry Transformation Maps in Singapore and Ireland's Enterprise Plan.

- geographic

For most small European countries, 60-70% of exports (of goods) are destined for other EU countries. Exports to emerging markets are growing, but remain relatively small. For example, exports to China from small EU countries range from about 5% to 8%, although this is growing quickly. In many small

European countries, there is a desire to build diversity, although there are practical limits.

About two thirds of Scotland's total exports are sent to rUK; and of the remaining one third, about half are sent to European markets. This means that around 80% of Scottish exports are focused on Europe, with a reasonably limited footprint in North America and the Asia/Pacific (about 7% and 5% respectively). This suggests that there is opportunity to diversify across markets.

Of course, Brexit complicates matters significantly for Scotland. Although it is difficult to know exactly what the relationship will be until the negotiations are concluded, it is likely to be more challenging to sell into the EU from Scotland after Brexit. The UK will remain an important market, but the weaker growth outlook may compromise Scottish exports.

Ireland is an interesting model: exports to the EU and the UK are important, but the US is a more important market than it is for most other European countries. And Ireland is making inroads into Asia as well. New Zealand also has a diversified set of export markets, due to the absence of close markets as well as the commodity focus of its export base.

Of course, Scotland's existing export footprint will provide guidance as to the appropriate export promotion efforts. But government action can help to shape the growth prospects in different regions, and particularly in markets in which Scotland is less well-established. Scotland will not have an ability to negotiate FTAs, as is the case for other EU members. But these countries undertake export promotion, investment attraction and national branding exercises. Aspects of this are undertaken by Scotland already, and more could be done.

Concluding remarks

Small advanced economies have performed strongly over the past few decades, as they have positioned themselves effectively to compete in an era of intense globalisation. This experience has implications for Scotland. In what is likely to be a period of disruptive change, from risks of protectionism to the emergence of new disruptive technologies, a sharp focus on using policy levers effectively will be increasingly important. Of course, Scotland has some particular constraints on policy autonomy. But in a globalised world – and particularly for members of the EU – all small advanced economies face meaningful constraints on their policy autonomy.

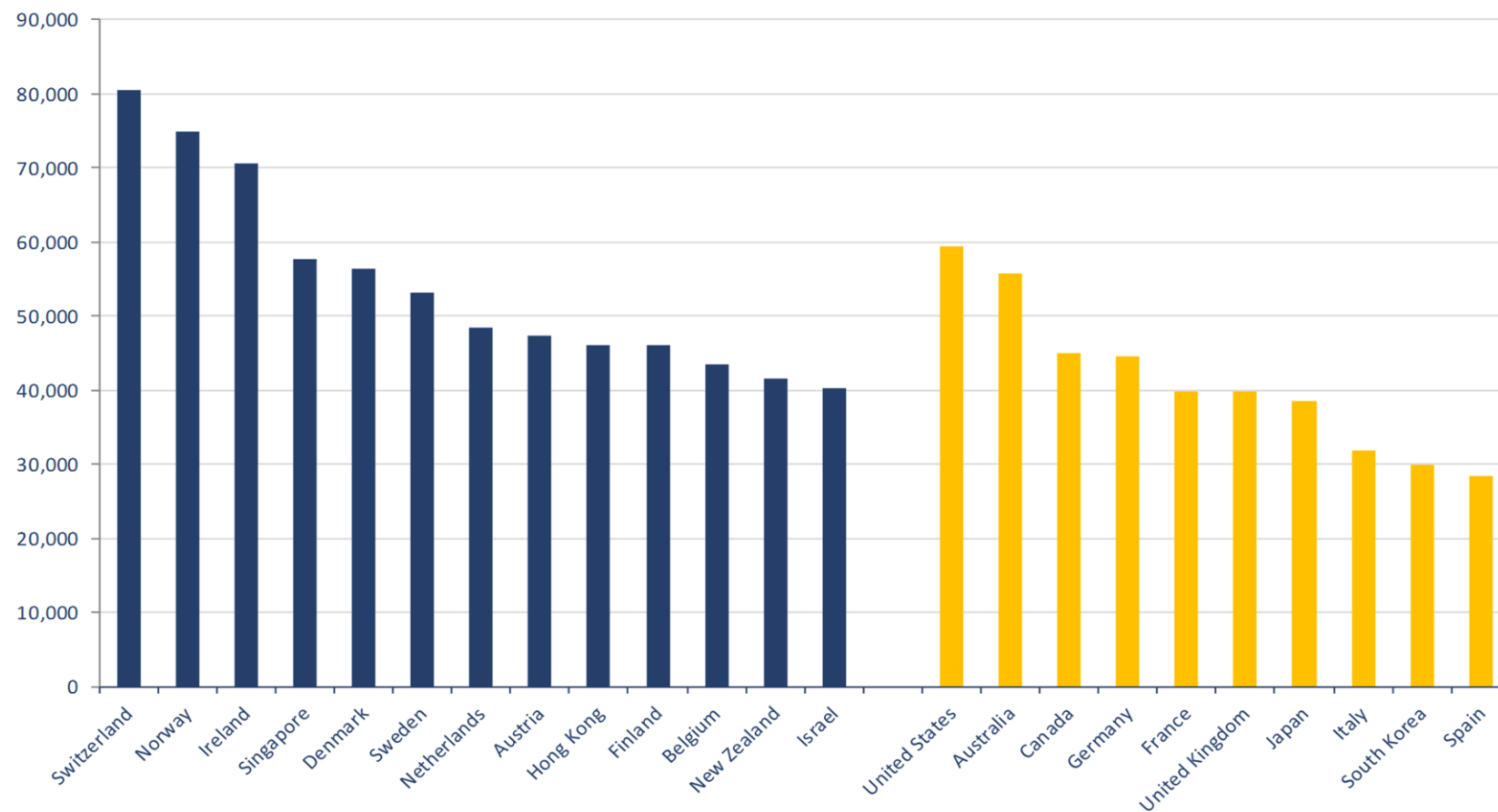
The issue is to optimise policy settings within these constraints, and Scotland can do much to strengthen its competitive position given the powers that it has. The currently devolved powers give Scotland an enhanced ability to set policy in a way that reflects its specific context and characteristics, to strengthen the overall competitiveness of the economy and to build on specific areas of advantage.

This note has described some broad policy themes that are relevant for Scotland in this regard: small economies will need to have solid policy foundations that give them an edge; to be externally oriented with a clear strategy for international growth; and to invest heavily in knowledge and human capital.

Exhibits

Small advanced economies have relatively high levels of per capita income

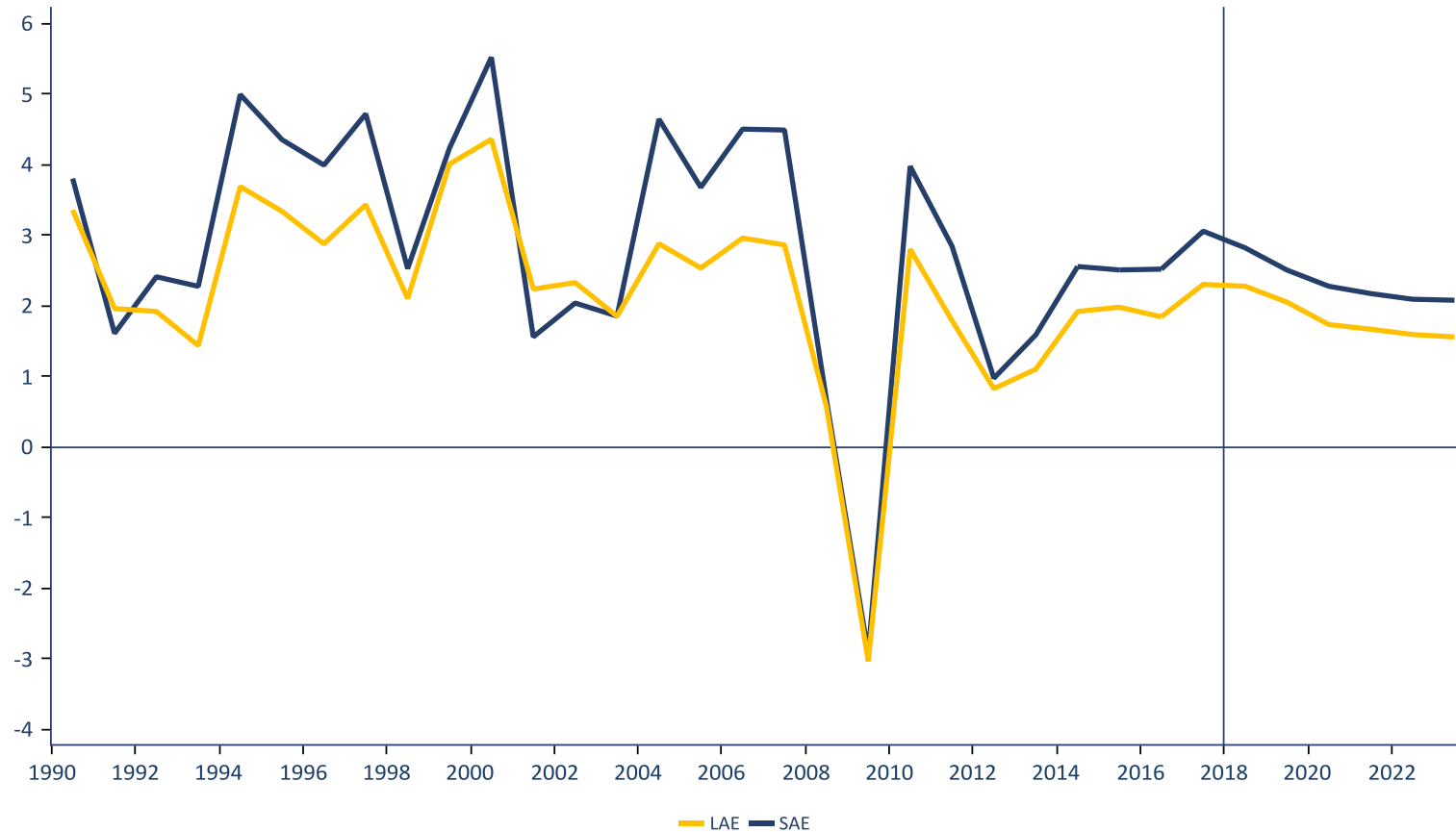
Real per capita income, USD, 2017



Source: IMF, World Economic Outlook, April 2018

Small advanced economies have consistently out-grown large advanced economies over the past 25 years, and this is expected to continue

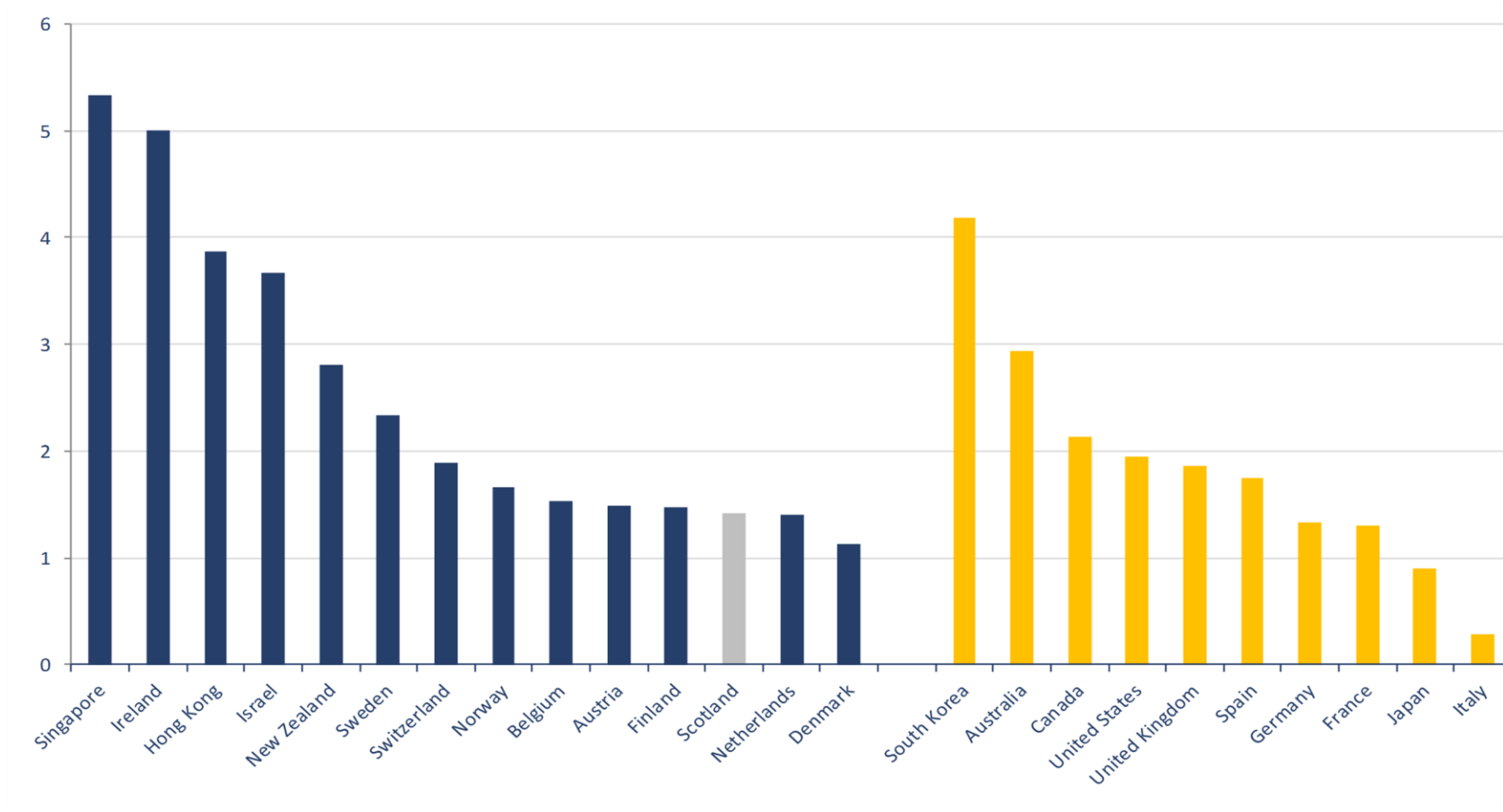
Real GDP growth, %, average, 1990-2023



Source: IMF, World Economic Outlook, April 2018; Landfall Strategy Group calculations

This strong small economy growth performance has been fairly broad-based, with some very strong performers; Scotland has lagged

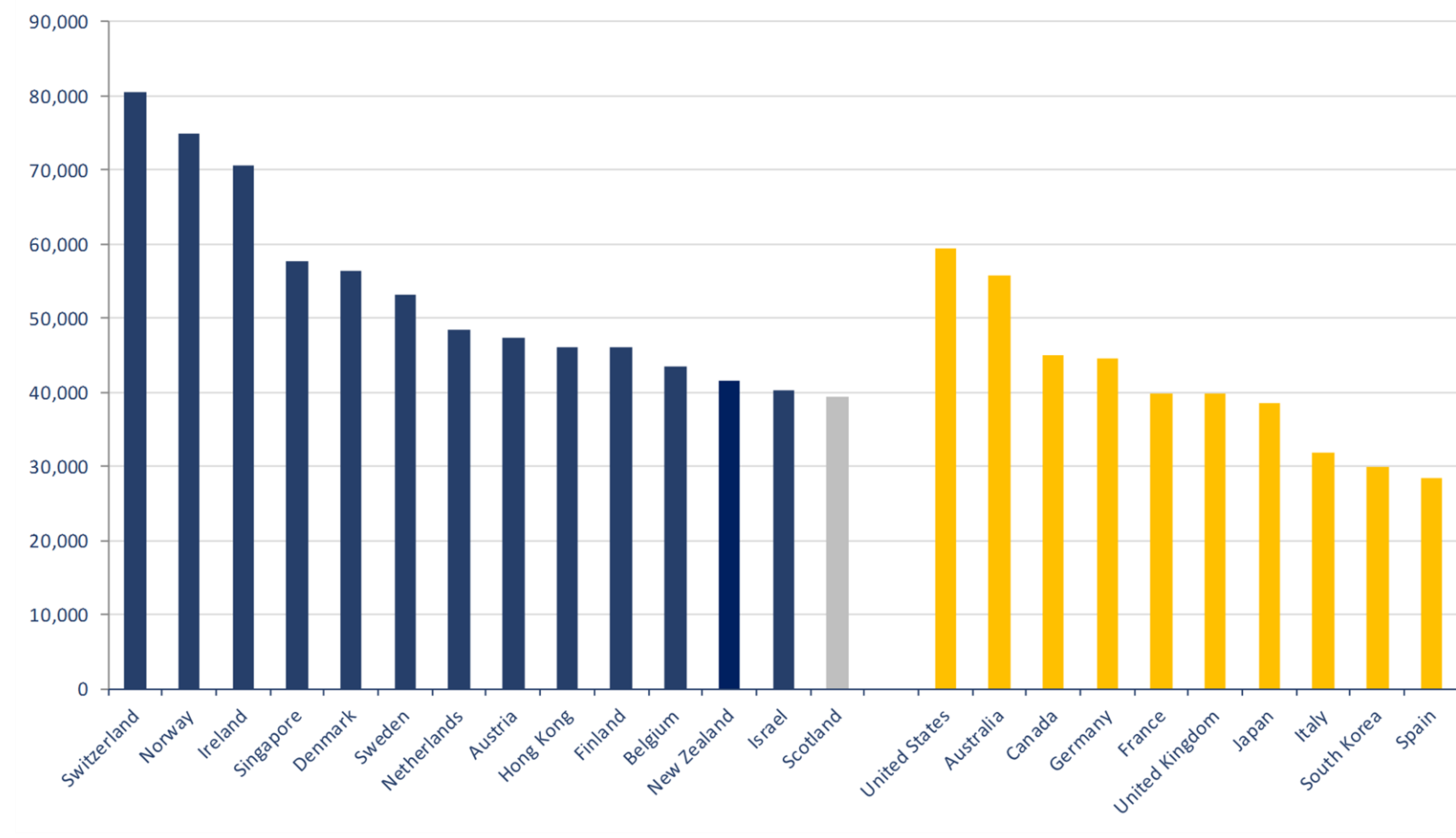
Real GDP growth, %, average, 2000-2017



Source: IMF, World Economic Outlook, April 2018; Landfall Strategy Group calculations

Scotland's per capita income level is at the bottom of the small advanced economies group

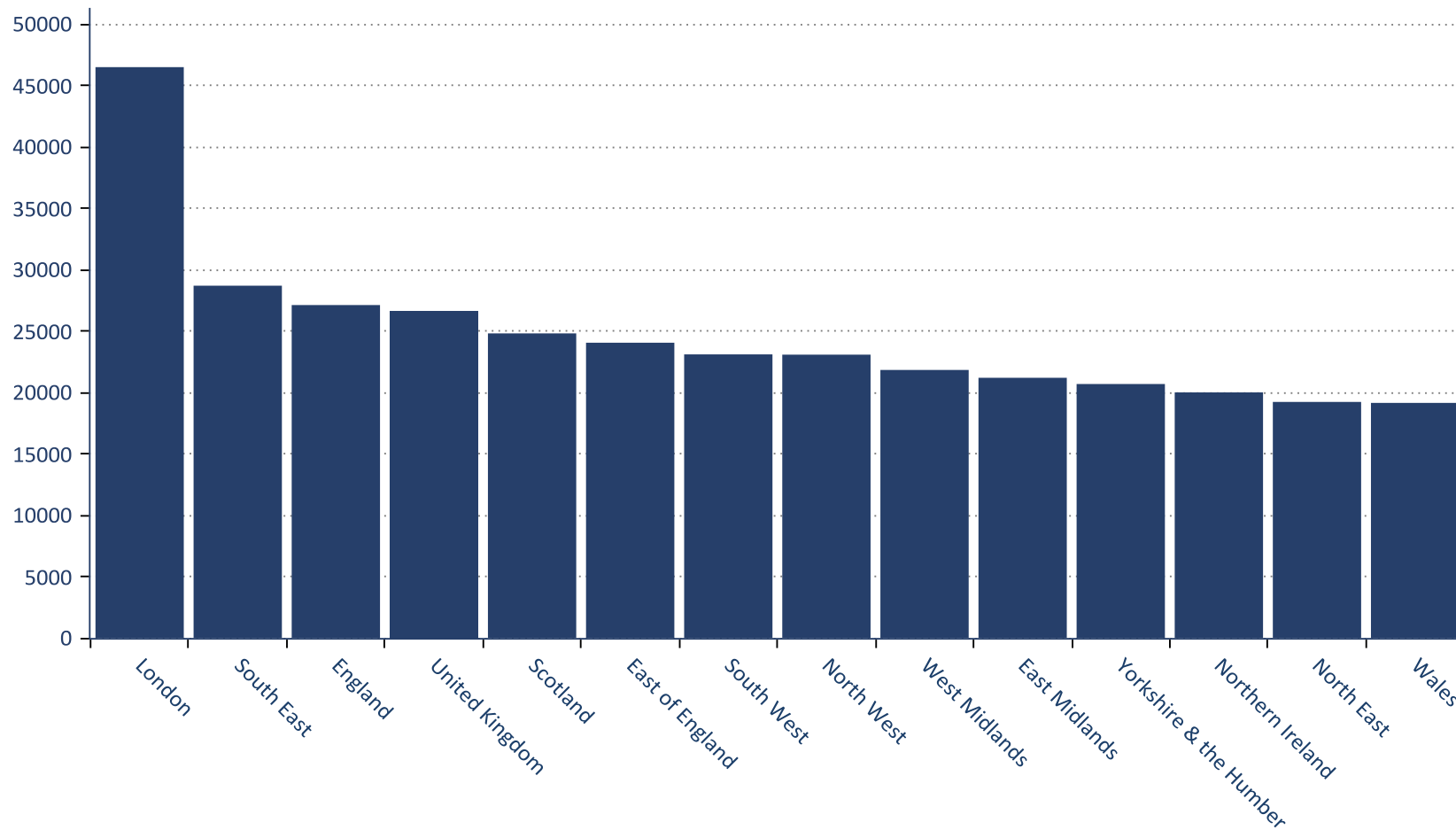
Real per capita income, USD, 2017



Source: IMF, World Economic Outlook, April 2018; Scotland Government (2017 per capita income data); Landfall Strategy Group calculations

Scotland's per capita GVA is just below that of the overall UK, but it is above most UK regions

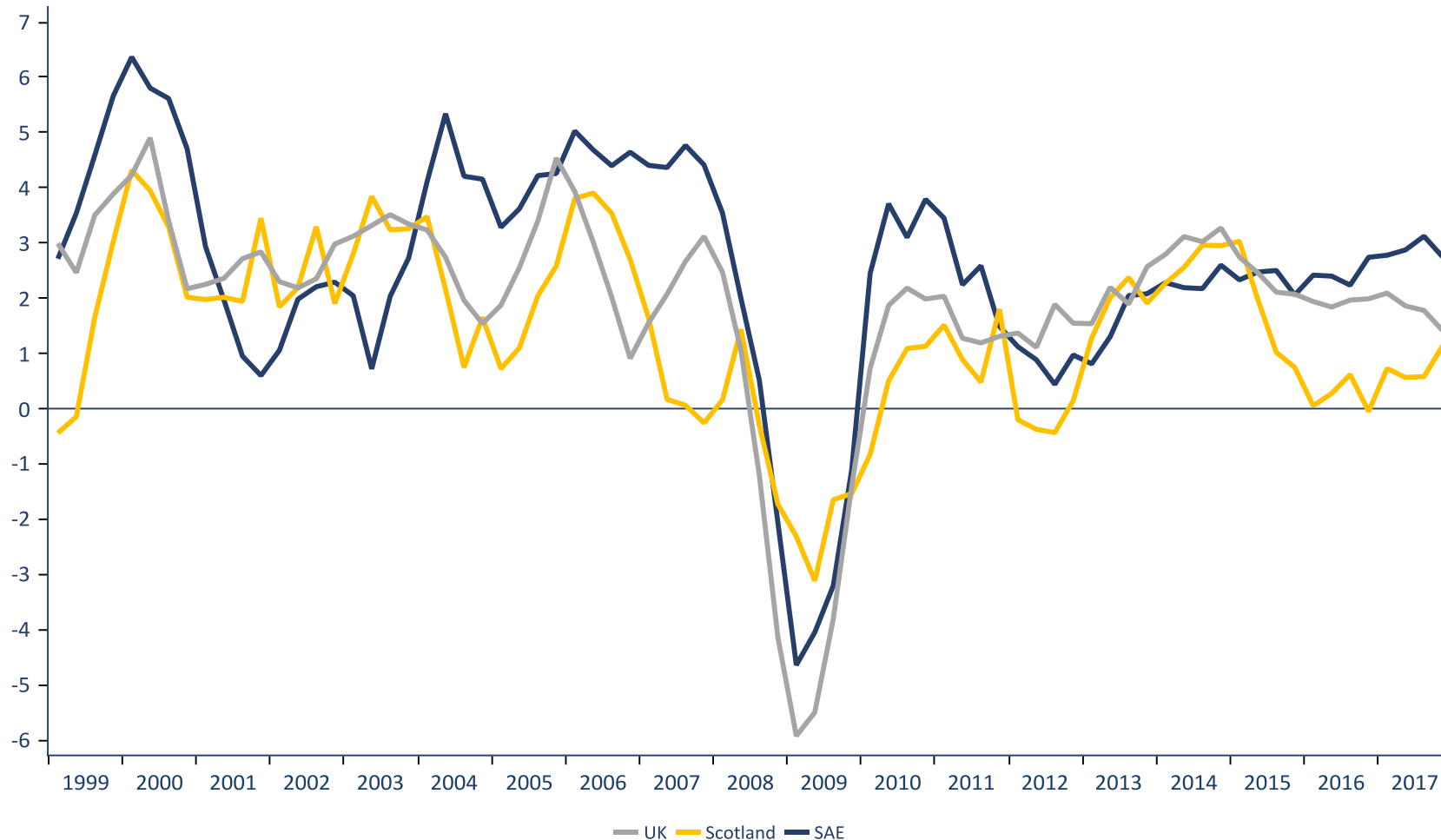
Regional gross value added, per capita, GBP, current prices, 2016



Source: ONS

Scotland's GDP growth has consistently lagged the small economy group, but has tracked the UK economy until the past few years

Real GDP growth (sa), %, compared to quarter of previous year, Q1 1999 – Q4 2017

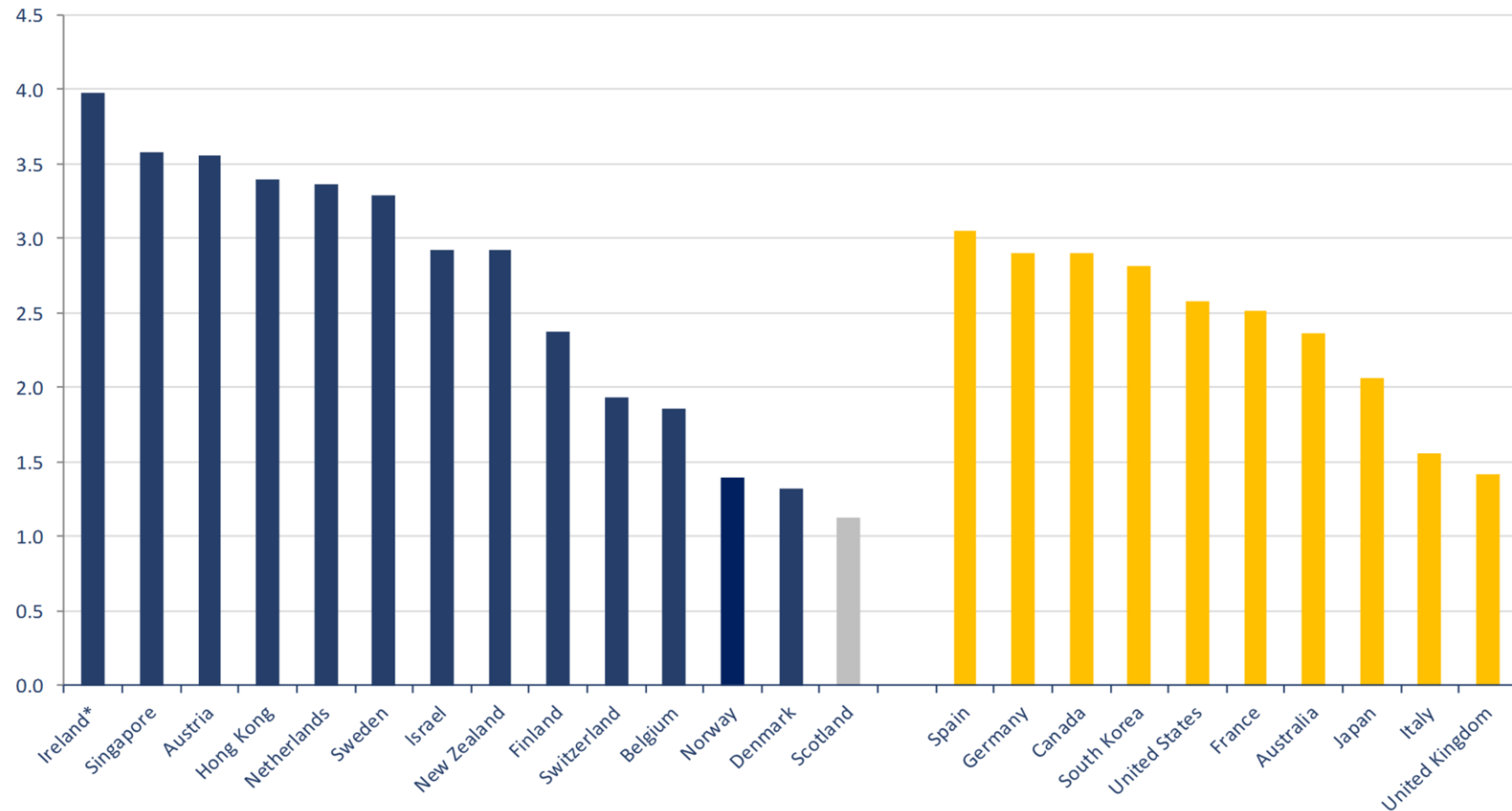


Source:

National sources; Landfall Strategy Group calculations.

Scotland's Q4 GDP growth was at the bottom of the small advanced economy average; the UK is at the bottom of the large economy group

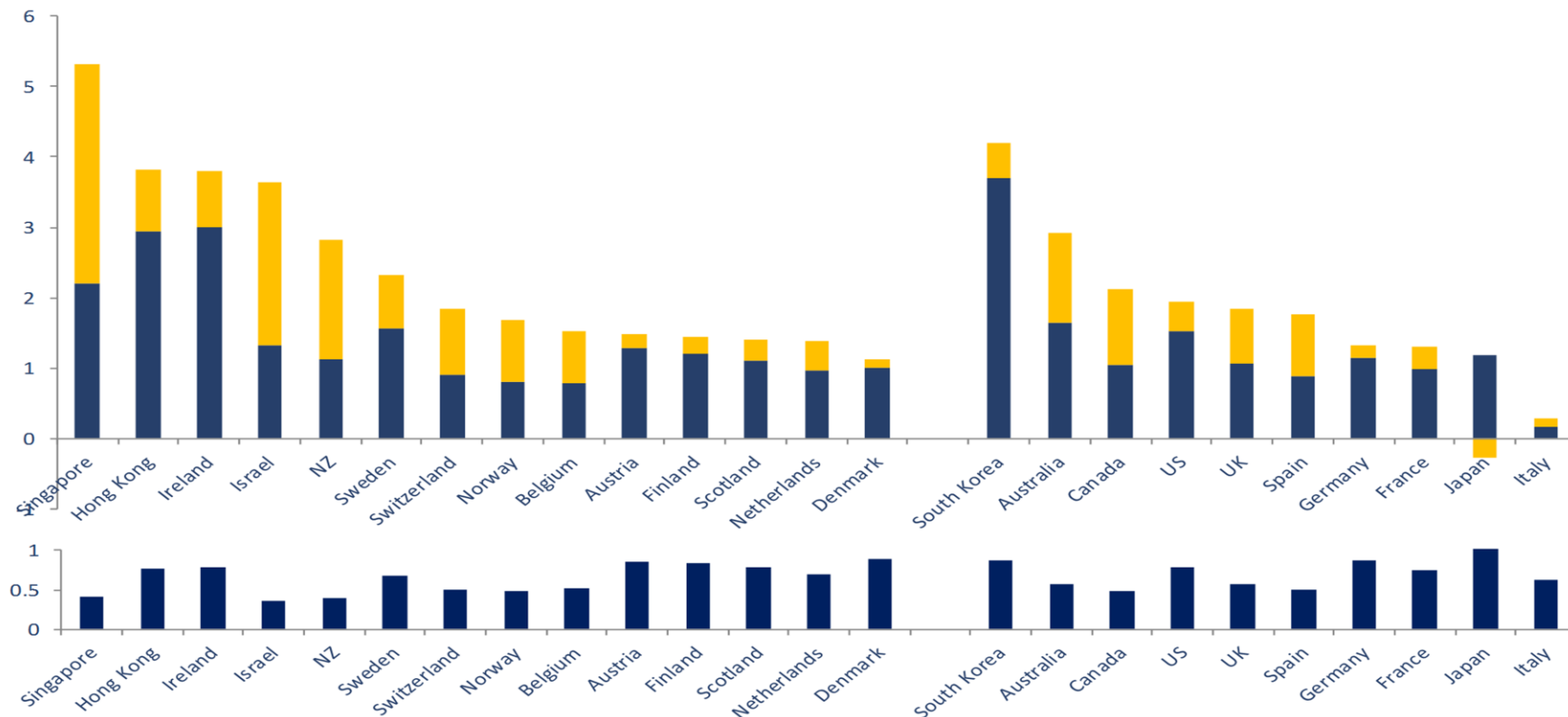
Real GDP growth (sa), %, compared to quarter of previous year, Q4 2017



Source: National sources; Landfall Strategy Group calculations. Note: Ireland's growth is based on growth (yoy) in modified domestic demand, not GDP.

About 70% of Scotland's GDP growth since 2000 has come from labour productivity growth, the remainder from growth in hours worked

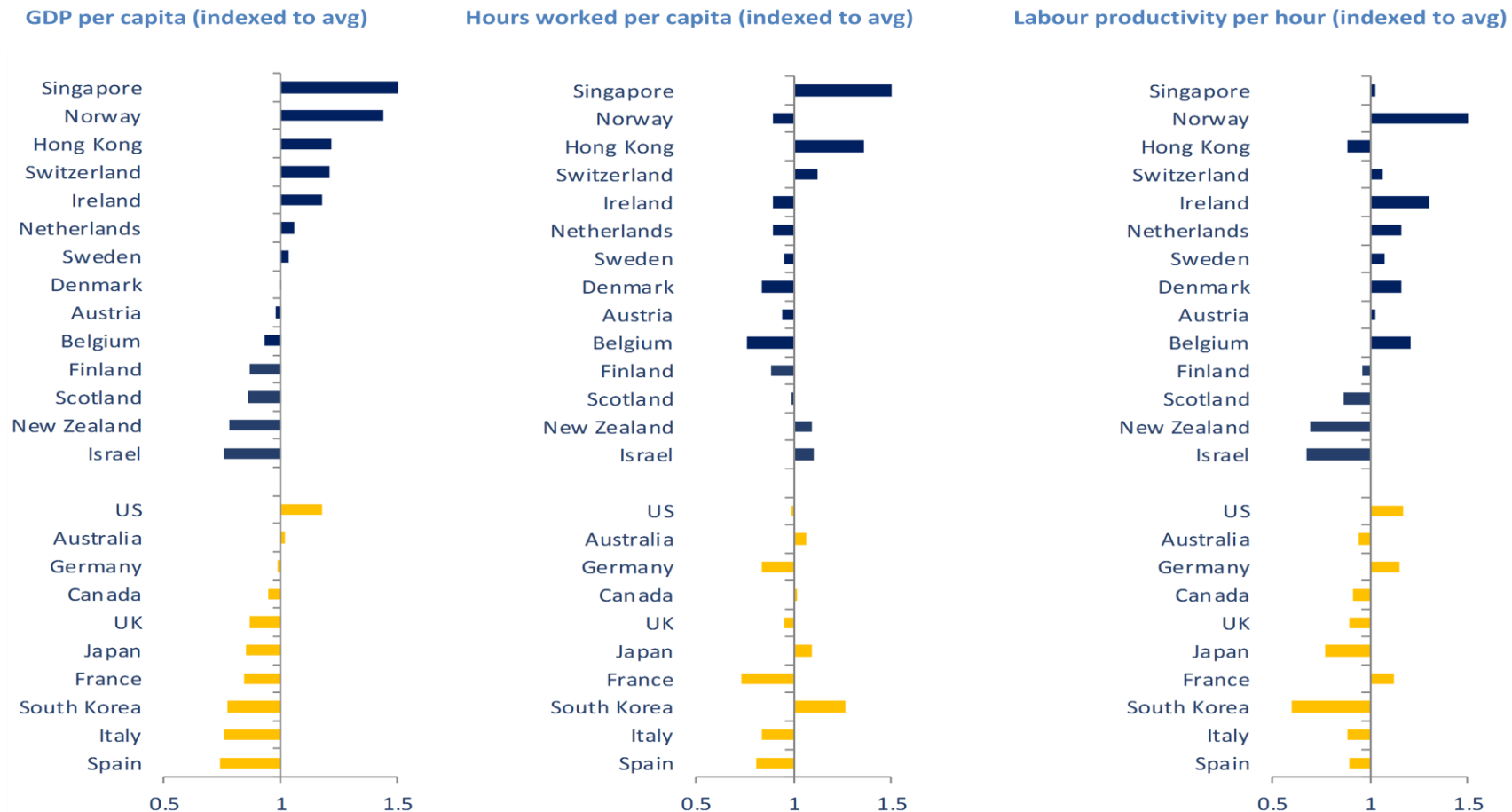
GDP growth decomposition: growth in hours worked (yellow), LP growth (blue); share of GDP growth from LP growth; 2000-2017



Source: The Conference Board Total Economy Database, May 2017; Scottish Government; Landfall Strategy Group calculations

Source: The Conference Board Total Economy Database, May 2017; Scottish Government; Landfall Strategy Group calculations

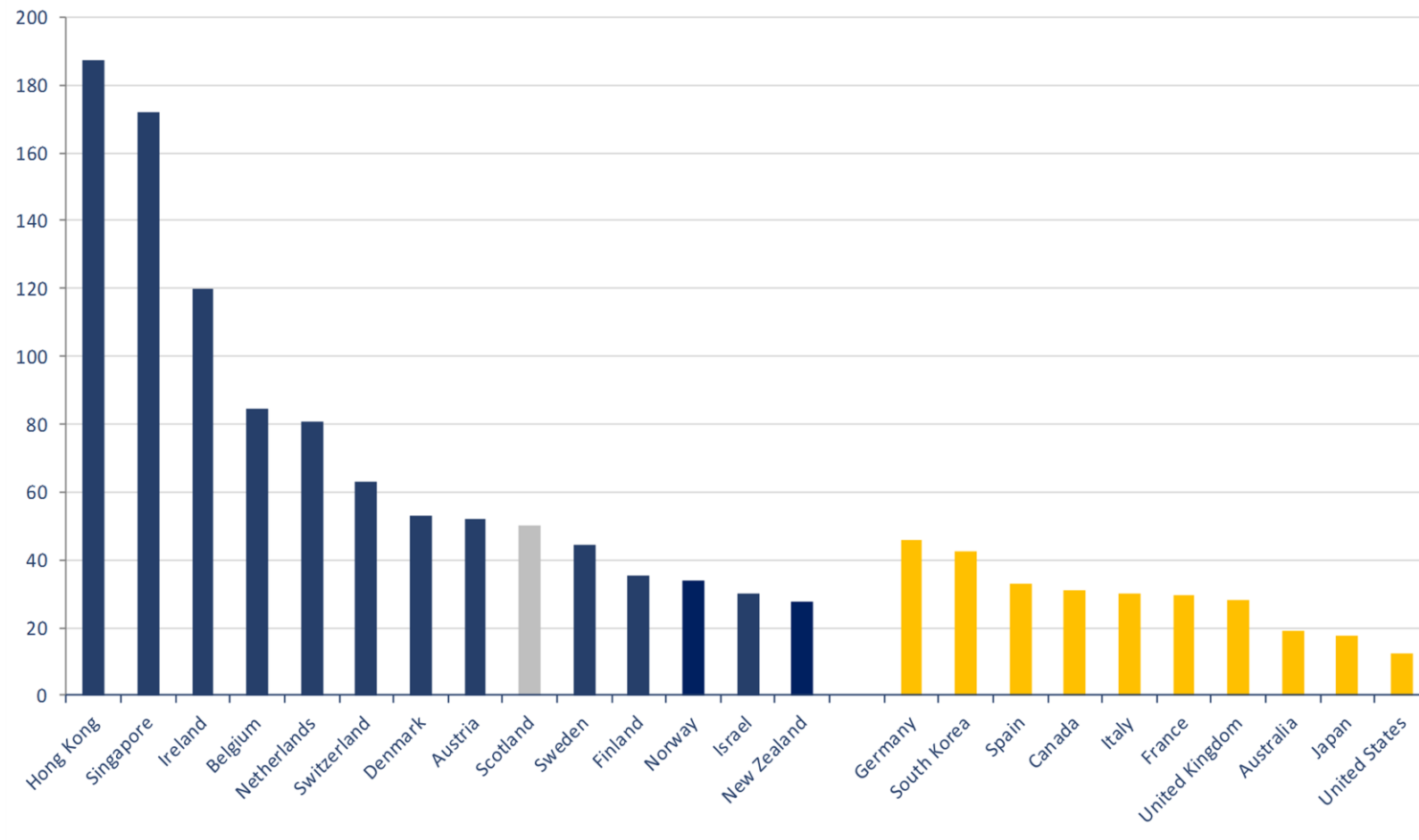
Scotland's growth model is very similar to the UK, with relatively low levels of labour productivity compared to its small economy peers



Source: The Conference Board Total Economy Database, May 2017; Landfall Strategy Group calculations. Note that source data are in PPP terms. Scotland numbers derived from the relationship in labour productivity levels between the UK and Scotland reported by the Scottish Government.

Small advanced economies have higher export shares than most larger economies; Scotland is in line with several small European economies

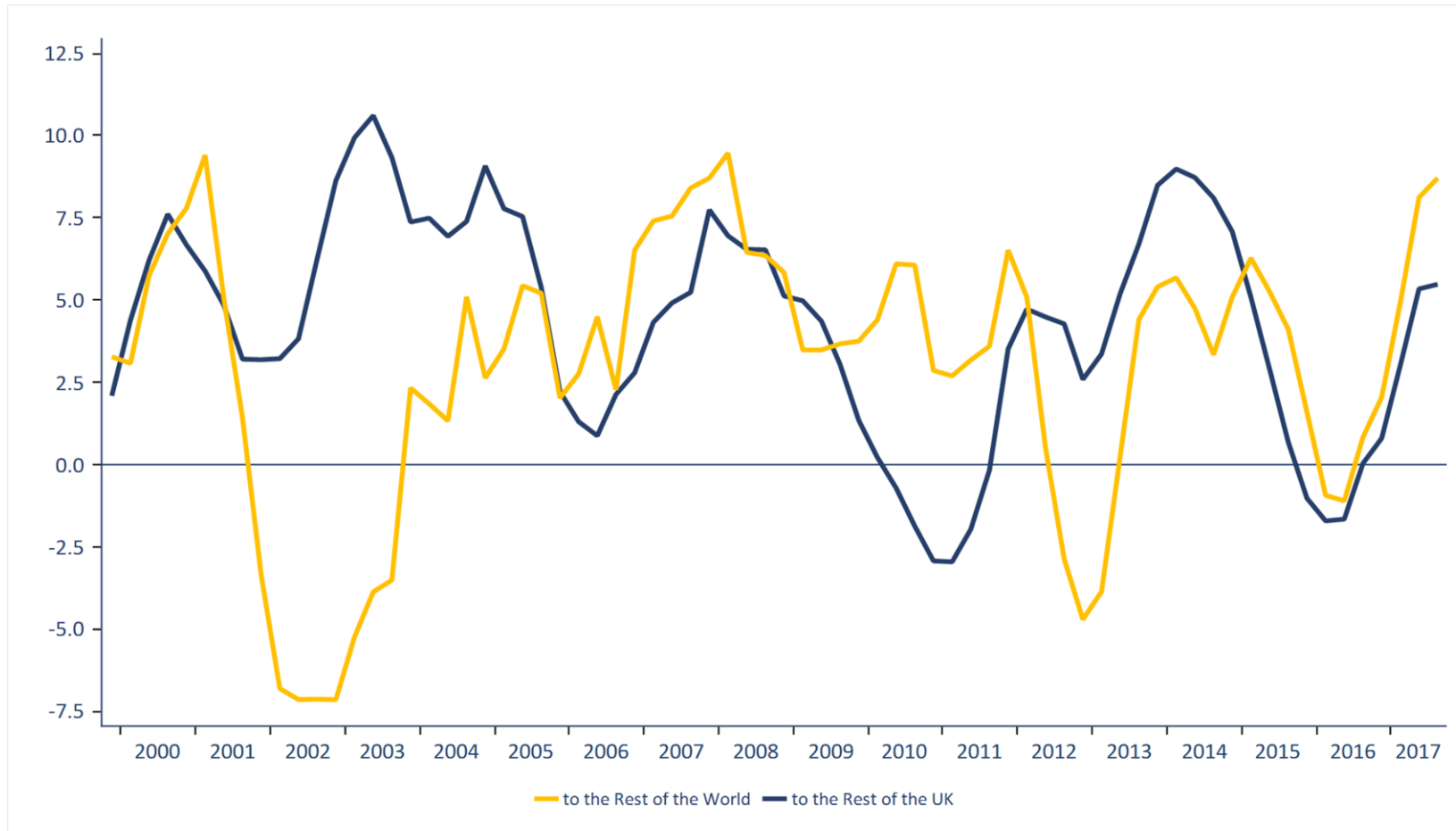
Exports of goods & services, % of GDP, 2016



Source: World Bank, WDI, June 2017; Scottish Government; Landfall Strategy Group calculations.

Scotland's export growth has picked up sharply over the past year after a weak period in 2015 and 2016

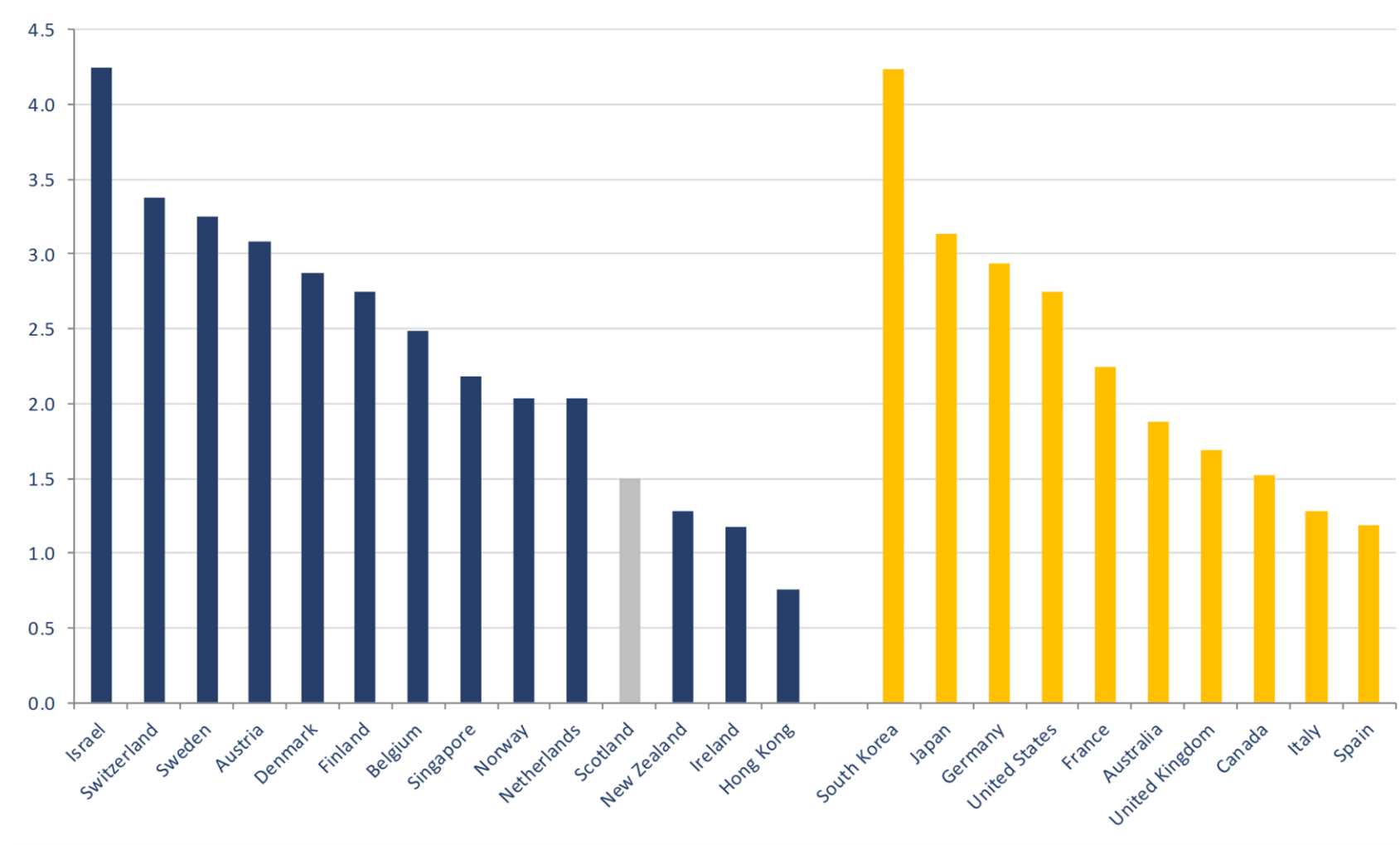
Growth in exports from Scotland, % yoy, Q1 2000 – Q3 2017



Source: World Bank, WDI, June 2017; Scottish Government; Landfall Strategy Group calculations.

Several small advanced economies have sustained high levels of investment in R&D

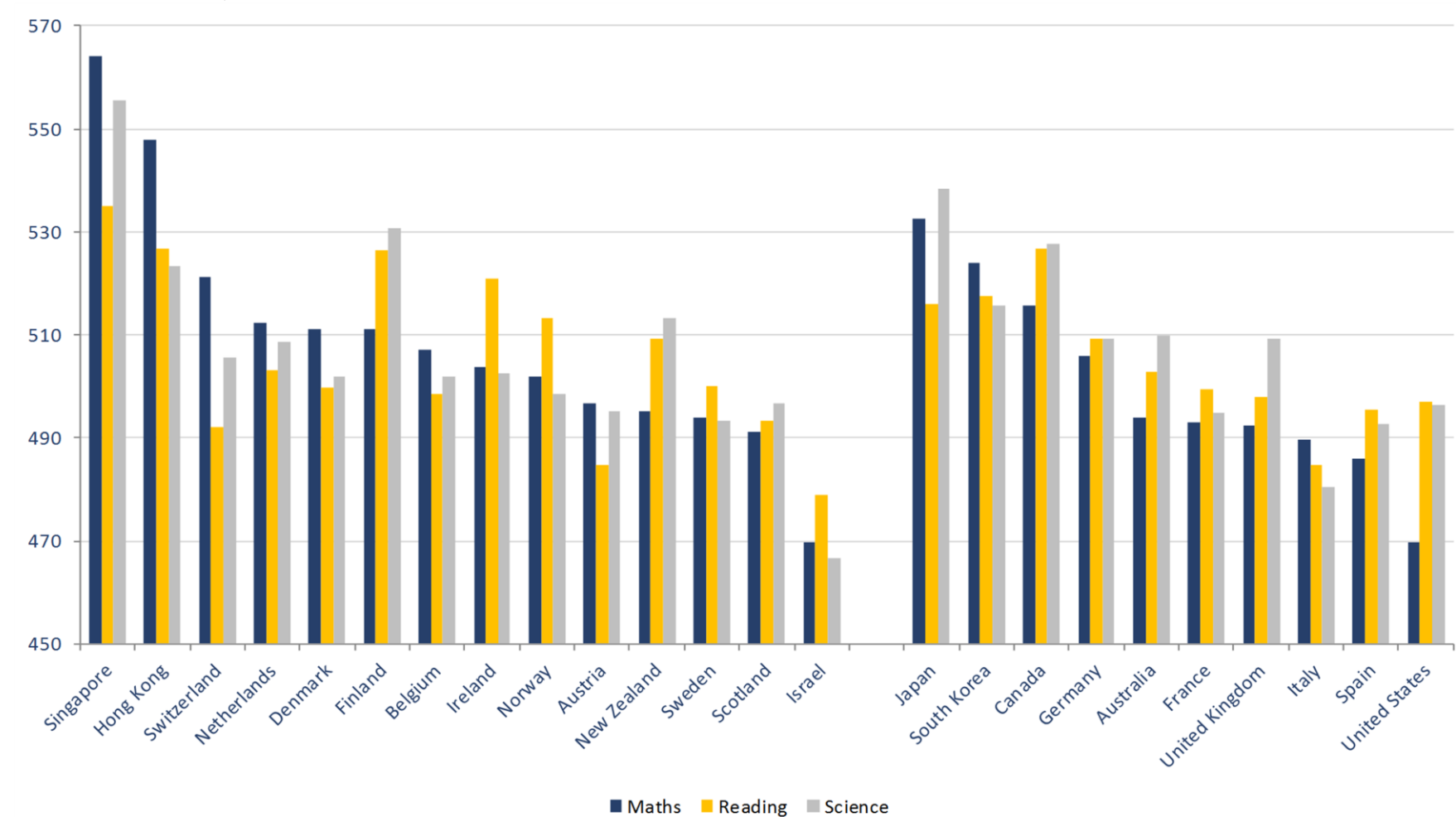
R&D spending as a % of GDP, 2016 (or latest available)



Source: OECD; World Bank; Scottish Government

Scotland's PISA scores in maths, reading and science are towards the bottom of the advanced economy rankings

PISA test scores, 2015



Source: OECD

Listing of selected advanced economies

Small advanced economies

Country	Population	GDP/Cap (USD)
Ireland	4,728,000	70,638
New Zealand	4,844,000	41,593
Norway	5,290,000	74,941
Scotland	5,405,000	39,441
Finland	5,503,000	46,017
Singapore	5,607,000	57,713
Denmark	5,749,000	56,444
Hong Kong	7,410,000	46,109
Switzerland	8,420,000	80,591
Israel	8,709,000	40,258
Austria	8,815,000	47,290
Sweden	10,120,000	53,218
Belgium	11,352,000	43,582
Netherlands	17,080,000	48,346

Large advanced economies

Country	Population	GDP/Cap (USD)
Australia	24,764,000	55,707
Canada	36,657,000	45,077
Spain	46,333,000	28,359
South Korea	51,454,000	29,891
Italy	60,589,000	31,984
France	64,801,000	39,869
United Kingdom	66,051,000	39,735
Germany	82,713,000	44,550
Japan	126,750,000	38,440
United States	325,890,000	59,501

Source: IMF World Economic Outlook, April 2018 (data for 2017); Scottish Government; Landfall Strategy Group.

