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Policy: The road to perdition or salvation?

Populism and nationalism are adding to risk in ways not seen since the 1930s - some countries seem to have more tools than others to tackle this environment.

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Executive summary

The world is confronted by an enduring slow-growth environment in which recessions stand to be more probable. Populism and nationalism, fuelled by frustrated aspiration and post-truths, are adding to risk in ways not seen since the 1930s, while policy is now a black swan, threatening bouts of intermittent and exaggerated market volatility. However some countries seem better positioned than others to tackle this environment, while investors are not devoid of choice or opportunity. Unavoidably, the anxious search for yield and return, with interest in riskier and more alternative assets, is set to continue.

- Global growth potential is in headlong retreat and, according to some well-informed sources, the risk of another downturn in the US over the next three years exceeds 50%.
- Pressures to maintain unconventional monetary policy are unlikely to dissipate, and may even intensify. To the extent that in many countries 'conventional unconventional' monetary policy is nearing the end of the road, fiscal policy will have to carry more of the burden.
- Infrastructure investment warrants special consideration because of its ability to stimulate demand directly, 'crowd in' private sector spending, and enhance supply potential.
- Moreover, *in extremis*, central bankers and finance ministries may have to come together and explicitly embrace the monetary finance of fiscal deficits.
- Supply potential can be improved by structural reform but efforts since 2008 have, in many countries, been hesitant and uneven. A few, however, have structural policy settings that stand them in good stead (such as Switzerland, the US, the Netherlands, Japan, Sweden, and the UK).
- There is a sense that for the necessary policy shifts to be accelerated, the global environment would first have to deteriorate; perhaps only a renewed global downturn would be sufficient to concentrate policymakers' minds.
- Investors face a difficult environment, in which likely slow policy change stands to cap bond yields, while soft top-line growth and thinner profit margins hamper stocks.
- Lower returns in traditional asset classes means the demand for alternatives will remain robust. Infrastructure investment is particularly attractive, having important demand-side multiplier effects while at the same time augmenting supply potential.
- A danger is that, in their desperation to meet the challenges of low returns, long-term institutional investors pursue herd-like behaviour in searching for yield and in the process acquire excessive holdings of high risk, illiquid assets prone to shocks and fire sales.■

A challenging new investment world beckons

The past 30 years have been something of a golden age for advanced-economy investors. Total returns on both fixed income and equity investments have consistently exceeded long-term historical norms.

Investment returns over recent decades have been very strong …

In the US, for example, since 1985 the average real return on bonds has been in the region of 5% per year, more than 300bps above the 100-year average. In western Europe, it has been an even more impressive 6%, in excess of 400bps above the 100-year average. Indeed, there have only been two longer and more dramatic bond bull markets over the past 800 years.[1]

Equity market returns, including both dividends and capital appreciation, have been similarly impressive. Again since 1985, real stock returns in the US and Western Europe have averaged around 8% per year, as against 100-year averages of around 6.5% and 5% respectively.[2] However, over the past five years, returns have increasingly reflected higher Price-to-Earnings (P/E) ratios and increased dividend payments.

The extent to which such performance will, or will not, be sustained will depend on a range of factors. The key determinant will be the extent to which the slow growth of major economies since the Global Financial Crisis (GFC), with associated slow growth of investment, international trade, and labour productivity, continues; or gives way to a historically more 'normal' progression.

… but slower economic growth threatens to change all this

Our judgement is that, while the initial, direct effects of the GFC have now seemingly largely passed, important legacy effects are still bearing down on growth. But beyond that there are further, intrinsically structural, influences that are also limiting growth. In the absence of major economic policy adjustments, and quite possibly even with policy change, the risk is that the world is set for a rather long period, perhaps some decades, of below-average growth of both output and inflation.

To the extent that that is the case, average returns, both on bonds and on stocks, are likely to be less impressive than in past epochs. And this will have significant and painful repercussions for both individual and institutional investors and for governments.

Summary: *Investment returns are set to disappoint by recent standards, while the associated risks multiply.*

Principal tail risk: *This new paradigm works out far worse than currently expected.*

The new mediocre – a deeper malaise

Legacy effects of the GFC still hamper real activity…

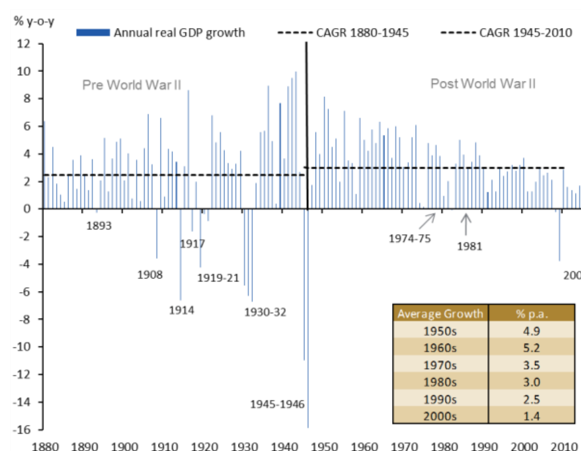
The prospect of rather slow economic growth in the years ahead has in fact been evident for a considerable time. Certainly, the recent weakness of growth and inflation can be traced in part to painful aftereffects of the GFC and, in particular, financial sector dysfunction and extended

Figure 1: Debt burdens (% of GDP)

Economy	Sector	2008	2016	Change
Euro area	Government	68	107	39
	Non-financial corporates	96	105	10
	Households	59	59	0
	Total	222	271	49
US	Government	62	102	40
	Non-financial corporates	71	72	1
	Households	98	78	-20
	Total	231	252	22
UK	Government	44	108	64
	Non-financial corporates	86	71	-15
	Households	93	87	-6
	Total	224	266	42
Japan	Government	152	227	75
	Non-financial corporates	99	101	2
	Households	65	66	1
	Total	316	394	78
China	Government	34	45	11
	Non-financial corporates	98	169	71
	Households	19	41	22
	Total	151	255	104

Source: Bank for International Settlements

Figure 2: G7 real GDP Growth



Source: Angus Maddison database and IMF WEO, October 2016
Notes: CAGR calculations by Llewellyn Consulting

efforts to deleverage across both the private and the public sectors.

Even today, total debt ratios remain high. Even if the upward trends in household or corporate debt ratios have slowed, or been arrested, government debt ratios have continued to march inexorably higher. Overall, balance-sheet pressures continue to weigh heavily on economies. (Figure 1).

… but growth is also being fettered by more enduring factors …

However, the underlying pace of economic activity has in fact been slowing persistently in the major economies for several decades (Figure 2). This reflects a range of factors, including enduring and broader structural considerations, notably: population ageing; slower technological diffusion and productivity growth; the 'demassification' of economies; underspending on public infrastructure; and increased income inequality.

Taken together, these factors have raised private savings, and depressed animal spirits and output expectations. Importantly for the future, this has rendered the slowdown in effect a self-fulfilling prophesy. The OECD now estimates that per capita growth potential among its membership is around only 1% per year.[3]

… and these constraints are also in emerging markets …

What is more, there is now growing evidence that many of these constraints on growth are becoming manifest in the emerging market economies. There too, the credit intensity of growth has increased to levels where balance sheet adjustment is often overdue, demographic factors are becoming less supportive, investment and productivity growth appear to be moderating, and inequality, already often extreme, is on the rise. The OECD estimates that per capita growth potential in the BRIC economies has dropped by between 1 and 2 percentage points since 2011.[4]

… with disturbing implications for politics

These developments are already having important political consequences. They are a breeding ground for frustrated aspiration, populism, and nationalism. These are adding to risk in ways not seen in most countries since the 1930s.

Summary: *The weakness of growth potential reflects not just the corrosive effects of the global financial crisis but other more enduring headwinds.*

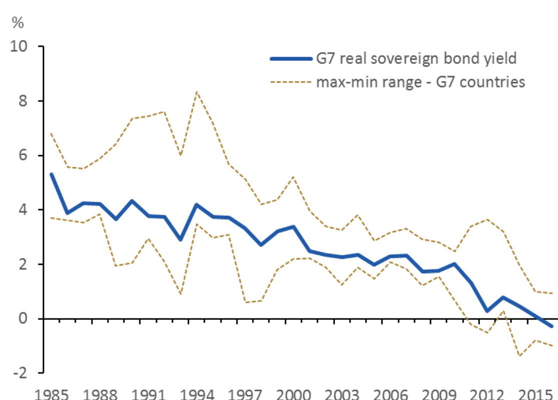
Principal tail risk: *The next recession delivers a further discrete negative shock to growth potential, accelerating the ascent of populism.*

Plumbing the depths

Bond yields are likely to remain historically relatively low …

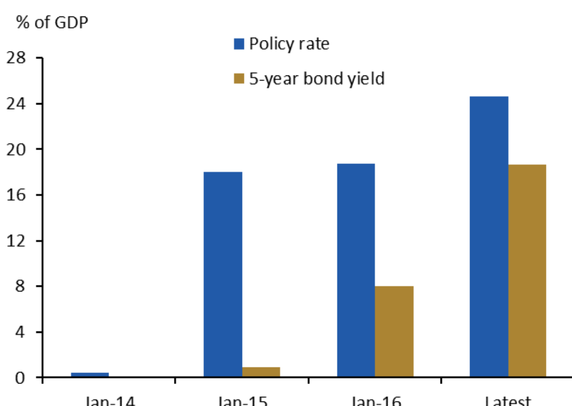
Such an environment, of slow underlying growth and weak inflation, implies that the 35-year decline in both short and long-term interest rates is unlikely to reverse significantly (Figure 3). The lion's share of this downward adjustment has been in real interest rates, indicating that the so-called 'neutral' or 'equilibrium' interest rate – the rate required to keep growth at its trend rate and inflation stable – has fallen commensurately. In reducing policy rates closer and closer to the zero bound, central banks have in large part simply been accommodating the fall in the neutral rate.[5] Seeking to hold policy rates significantly above the neutral rate would have served only to encourage even weaker economic activity, and greater deflationary pressures, and would therefore have been unsustainable. In this sense, policymakers have had little choice but to

Figure 3: 10-year government bond yields



Source: Macrobond and Llewellyn Consulting
Notes: Nominal 10-year GDP-weighted sovereign bond yield minus core CPI inflation

Figure 4: Share of world GDP with negative interest rates



Source: World Bank
Notes: Latest is 19 Dec 2016

become increasingly unorthodox. (Figure 4).

... policy rates will be stuck around the zero bound ...

The apparently enduring nature of many of the fundamental forces that have led much of the world into this low nominal growth trap would also suggest that, in the years ahead, market interest rates will remain historically low, and that most central banks will struggle to escape the zero bound. Periods of relatively slow growth will become more commonplace.

... and unconventional policy a fact of life

Furthermore, recessions are more probable. The current cyclical upswing, while still hesitant and uneven, is, at some eight years old, relatively long in the tooth. The probability of another downturn over the coming few years, already high, is rising. Former US Treasury Secretary Larry Summers has suggested that the chance of a US recession over the next three years exceeds 50%, and points out that, in the past, each recession has required 4 to 5 percentage points of orthodox monetary easing. In short, the pressures for monetary policy settings to remain unconventional are unlikely to dissipate. Indeed, they may intensify.[6]

Summary: *Central banks have had to accommodate a declining equilibrium interest rate.*

Principal tail risk: *There is no broad-based return to conventional monetary policy.*

Reanimating growth

Raising growth requires both demand- and supply-side initiatives

This begs the question: what can be done to address slowing growth, and how likely is such action?

Proposed strategies typically fall into two categories: those which focus on ways to:

- Invigorate and sustain aggregate demand; and those which
- Augment aggregate supply.

In practice, the two strategies are most effective when undertaken together in such a way as to be mutually reinforcing. Sustaining a high pressure of demand can call forth new supply potential, just as new and more dynamic supply potential can help to release pent-up demand or create new demands – thereby increasing fiscal policy space, and improving monetary policy transmission.

Two variations on the theme of demand expansion have been mooted, one considerably more radical than the other. The first is a pivot towards a more active use of orthodox fiscal policy,

Figure 5: Fiscal policy heatmap, 2015-16

	DEU	CHE	SWE	ITA	FRA	DNK	JPN	ESP	IRL	NLD	UK	KOR	PRT	US	CAN	GRC	AUS	NZL
A. Fiscal space																		
Budget balance (% of GDP)	0.6	-0.2	-0.9	-2.6	-3.6	-2.0	-5.2	-4.5	-1.6	-1.9	-4.4	-0.2	-4.4	-3.7	-1.7	-4.2	-2.8	0.3
Debt to GDP (%)	71.0	45.6	44.1	132.6	96.8	45.6	248.1	99.0	95.2	67.6	89.3	35.9	128.8	105.8	91.5	178.4	36.8	30.4
Debt servicing costs (% of GDP)	1.2	0.2	-0.1	4.0	1.9	0.8	0.6	2.7	2.8	0.9	2.0	-0.1	4.2	2.8	1.0	3.4	0.6	0.8
NPV of age-related spending (% of GDP)	76.7	121.6	-9.6	37.6	13.0	7.1	54.7	90.6	66.7	151.2	63.6	154.4	105.3	152.9	63.7	58.8	73.8	145.1
Government expenditure (% of GDP)	44.0	33.0	49.3	50.4	56.9	53.8	39.3	43.0	34.4	45.9	40.2	21.1	48.2	35.7	40.3	50.0	37.2	34.7
Total [0 (lower) to 1 (higher)]	0.63	0.69	0.68	0.42	0.47	0.63	0.44	0.42	0.55	0.55	0.42	0.66	0.30	0.36	0.49	0.23	0.50	0.49
B. Case for fiscal stimulus																		
Monetary policy rate (15/04-15/07)	-0.4	-0.8	-0.5	-0.4	-0.4	0.0	-0.1	-0.4	-0.4	-0.4	0.5	1.4	-0.4	0.5	0.5	-0.4	1.8	2.3
Central Bank assets (% GDP)	31.4	107.8	18.6	31.4	31.4	24.9	85.3	31.4	31.4	31.4	22.0	30.4	31.4	24.9	5.3	31.4	10.1	10.6
Public investment (% of GDP)	2.2	2.9	4.4	2.8	3.9	3.3	3.4	3.7	3.1	3.8	2.7	5.1	3.3	3.4	4.0	4.2	3.4	3.9
Output gap (% of potential GDP)	0.2	-2.0	-0.3	-3.7	-1.8	-1.7	-0.3	-5.0	0.6	-2.5	0.0	-1.5	-5.5	-2.0	-1.3	-12.0	-2.0	0.1
Total [0 (lower) to 1 (higher)]	0.54	0.73	0.34	0.57	0.43	0.43	0.56	0.51	0.45	0.45	0.40	0.17	0.56	0.39	0.28	0.61	0.25	0.12
C. Efficency of fiscal policy																		
Household debt (% net disposable income)	93.6	197.8	173.4	90.2	104.7	308.0	131.8	127.3	207.4	277.0	155.8	164.3	141.3	113.5	166.4	115.0	205.8	159.5
Tax revenues (% of GDP)	39.4	27.2	44.1	43.4	47.5	47.5	32.0	34.1	28.8	37.4	34.6	26.7	36.9	27.3	31.6	39.5	27.6	32.3
Import penetration (% GDP)	29.3	35.9	29.2	21.7	24.4	32.1	13.2	22.3	50.9	42.2	25.1	33.3	30.9	14.0	24.6	23.1	17.3	24.8
Marginal efficiency of capital	0.08	0.04	0.16	0.05	0.05	0.06	0.02	0.15	0.35	0.10	0.14	0.09	0.09	0.12	0.05	-0.02	0.10	0.10
Total [0 (lower) to 1 (higher)]	0.61	0.27	0.63	0.69	0.71	0.43	0.54	0.60	0.39	0.30	0.54	0.35	0.52	0.57	0.44	0.56	0.43	0.49
Candidacy for fiscal easing [0 to 1]	0.60	0.59	0.57	0.53	0.52	0.52	0.50	0.49	0.48	0.46	0.45	0.45	0.43	0.42	0.42	0.42	0.41	0.39

- The greatest financial leeway for fiscal expansion is to be found in Switzerland, Sweden, and Korea.
- The strongest case from the point of view of the existing macro policy mix and economies' cyclical positions is in Switzerland, Greece, and Italy.
- The soundest case from the point of view of potential policy efficiency is in France, Italy, and Sweden.
- The strongest overall case for greater fiscal activism is in Germany, Switzerland, and Sweden.

Source: Constructed by Llewellyn Consulting based on IMF and OECD data

Notes: The heatmap scores countries' financial leeway, incentive to use fiscal stimulus, and its likely efficacy. Green is positive. Red is negative.

especially public infrastructure investment, to support the unconventional monetary initiatives that have of late become commonplace, but which are increasingly suffering from diminishing returns and adding to risks of financial stability (Figure 5). The second, more extreme, variant of the pivot extends to central banks directly financing fiscal stimulus.

Summary: *Reviving growth will require a mutually-reinforcing combination of demand- and supply-side policies.*

Principal tail risk: *Policy recalibration greatly exceeds expectations, taking world growth back towards the higher rates seen in the past.*

Demand side: orthodox fiscal policy and the case for infrastructure

Fiscal policy will need to play a bigger role in economic management

With public sector deficits and debt high in nearly all western countries, there has been a widespread reluctance to engage in any significant fiscal expansion. In past years, much of the policy responsibility for supporting aggregate demand has fallen on monetary policy.

However, there is now some recognition that one category of public expenditure – infrastructure investment – warrants special consideration, not least because infrastructure investment has a dual effect: it increases both demand and supply.

Infrastructure spending can boost both demand and supply …

On the demand side, investment in infrastructure cascades through the economy, raising demand for labour, materials and other inputs – the so-called 'multiplier effect'.

On the supply side, the resulting increase in the capital stock directly both improves the efficiency of the economy and increases its productive potential (Figure 6).

The resultant increase in aggregate demand (GDP) in turn inspires confidence and, in due course, 'crowds-in' other forms of investment – the so-called 'accelerator' effect.

… and has been found wanting in many economies

Many Western countries now have widely-recognised deficiencies in their infrastructure. In recent years public investment has generally fallen as a share of GDP relative to pre-crisis levels, not least in Europe.[7]

There is increasing discussion in Western policy circles of the case for increased public spending on infrastructure. However, widespread support for a large and sustained boost has not been seen so far. There is talk – both in the US and to some extent in Europe, but it could be that strong support would come only in the event of a large fall in aggregate demand that monetary policy looked like being unable to counteract.

Summary: *Infrastructure spending is a particularly potent weapon to encourage revival.*

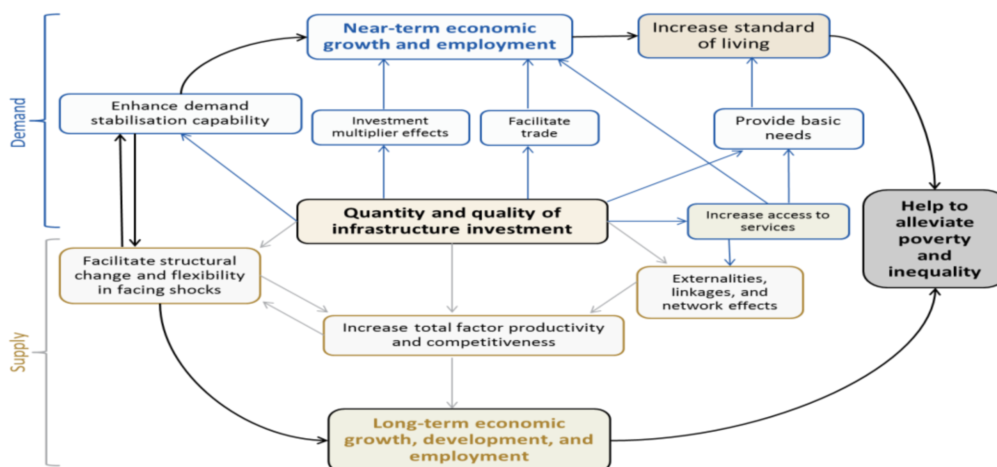
Principal tail risk: *The next recession results in a global renaissance of Keynesian fiscal expansion.*

Demand side: unorthodox monetary financing – the ultimate taboo

Some have suggested resort to monetary financing of deficits …

The second, more extreme, variant of a pivot towards fiscal policy involves central banks directly financing fiscal stimulus.

Figure 6: Infrastructure schematic: impacts on demand and supply



Source: Llewellyn Consulting

This subject excites strong opinions. To many, central bank financing of expansionary fiscal policy is the ultimate taboo. At a stroke, it sweeps away any constraint on government expenditure, and encourages a large and permanent increase in the monetary base. It thereby risks both a loss of control over the public finances, and excessive inflation. Others assert that it would be pointless, given that interest rates are already at or around the zero bound: if governments can borrow effectively at no cost, orthodox fiscal policy can do everything that monetary finance can do, and with fewer risks.

These critics may be missing a key point, however. Arguably, the principal rationale for resort to such an unorthodox strategy as monetary finance would be deliberately to deliver a constructive and decisive shock to expectations – of both inflation and economic growth.

In this sense, monetary finance could be viewed as working in much the same way as the abandonment of the gold standard in the 1930s. Forsaking gold convertibility, although initially seen by most commentators as sacrilege, in practice reversed expectations of deepening deflation, and pushed down real interest rates. The policy proved to be the path to salvation rather than the road to perdition.[8]

… which could deliver a powerful positive shock to expectations

Although such direct monetary financing would very likely deliver a decisive shock to growth and inflation expectations, the likelihood of such a policy being adopted seems slender, at least in the immediate future. Many policymakers, and a great many central bankers, would be deeply concerned at acquiescing in a policy that could be interpreted as sweeping away any budgetary constraint on government action. They would be highly concerned that the tap, once turned on, could not later be turned off again.

Summary: *Monetary finance could feasibly break the policy logjam, but at the cost of significant moral hazard.*

Principal tail risk: *Monetary financing increasingly becomes the policy norm.*

Supply side: structural policies to boost growth potential

The main basic policy option to reanimate growth on the supply side involves more and better structural reform.

Structural policies can enhance dynamism and help to absorb shocks …

Structural reform can best be defined as policies that encourage, or at least do not inhibit, the flow of resources from declining and less productive activities to growing and more productive activities.

Such policies serve not only to make economies more dynamic; they also render them better able to absorb shocks. Delivering structural reform can, however, be complex and challenging. The associated costs are typically narrowly focused and immediate, and the primary casualties frequently powerful and vocal. Moreover, full adjustment can take a generation, as demonstrated, for example, by the experiences of New Zealand and Australia since the 1980s.

… but managing the costs and benefits is a difficult process …

By contrast, the benefits of structural reform are typically spread thinly, and accumulate only slowly – they may take a decade or more to manifest themselves fully. Hence, the gains are often reaped not by a reforming government, but by the opposition. Equally unfortunate is the obverse: populist initiatives such as subsidies, protectionism, and regulation can offer governments immediate economic and political gains, even though their longer-term influence is usually malign. Thus, success is as much a matter of political economy as of technical economics.

The heatmap depicts the quality of structural policies in nine key areas, across a selection of economies. In 2016, the best policies were to be found in the Switzerland, the US, and the Netherlands, the worst in Greece, Mexico, and Turkey. (Figure 7).

… progress has been slow and uneven …

The recent pace of structural reform has slowed, and has been uneven and lacking in coherence. Looking ahead, there will likely be, in some countries at least, episodes of major structural reform: these do happen from time to time. But the prospect of widespread structural reform seems remote. Typically, major structural reform is enacted only when economies face serious problems that are widely recognised as warranting painful supply-side surgery, such as in the UK during the Thatcher years, in Germany in the 2000s, and in Australia and New Zealand in the 1980s.

… and there is a risk of further backsliding

So far, the requisite conditions seem far from being in place. Meanwhile, given the increasingly populist and nationalistic tone of the political debate, there is the risk that, on the contrary, politicians take the easy way out, and opt for short-term palliatives and fixes rather than lasting, fundamental, solutions.

Summary: *Structural reform is the sine qua non of supply-side improvement, but invariably politically challenging.*

Principal tail risk: *Populism and protectionism render further progress on structural reform impossible.*

The two sides of Trump

It has been suggested that President Trump's economic programme could provide the sort of shock therapy that is required to reanimate economic growth in the US. After all, his plans embody a heavy reflationary bias, and the stated intention, is to more or less double the growth potential of the US, to 3.5-4.0% per year.[9]

Even if the details are still sketchy, and Congressional intervention ensures that his plans evolve considerably over the coming two years, aspects of the Trump policy agenda, and not least his focus on infrastructure spending, corporate tax reform, and deregulation are supportive of the growth of both demand and capacity. On the other hand, the growth target seems unrealistic given that the working age population is growing by less than 0.5% a year, and US productivity growth, which has been in decline for decades, seems likely to remain modest. There are also question marks over the emphasis on subsidies to private firms to undertake the infrastructure programme, while proposed personal tax cuts are skewed towards the better off, and likely to have small multiplier effects, while adding to income inequality.

Moreover, there is no guarantee that the President's deregulation programme will strike the right notes. Indeed, there are already hints that rather than helping to overcome obvious shortcomings in the regulatory fabric such as the difficulty of setting up a business,[10] it will favour large companies in the energy, construction, and financial services sectors. Given the threat of climate change, the scope for corruption in connection with large building projects, and the genesis of the global financial crisis, this is a worry.

Equally concerning is that the proposed stimulus will be delivered when the US economy is already approaching full employment, running significant twin deficits (both are in the region of 4% of GDP, a level that normally portends trouble) and that it will be combined with a dose of deregulation and protectionism.

Overall, 'Trumponomics' – at least in the rudimentary form outlined thus far – is riddled with inconsistencies and questionable initiatives, and is badly timed. The risk is that, rather than shifting the US on to a permanently higher growth path, it will add to macro imbalances, and merely fuel an unsustainable and destabilising short-term boom, followed inevitably by a painful bust, and that stocks trace a similar path. At the same time it risks doing long-term damage to the system of international trade, a vital conduit for competition, technological diffusion, and thereby productivity.

If the Trump Presidency signals an end to the long-standing Pax Americana, then the prospective changes to the risk-return paradigm could extend far beyond what we have outlined here.

Figure 7: Structural heatmap, selected OECD economies, 2015-16

	GRC	MEX	TUR	ITA	CHL	ESP	KOR	OECD average	FRA	AUS	CAN	DEU	DNK	NZL	NOR	UK	SWE	JPN	NLD	US	CHE
Institutions	0.41	0.31	0.44	0.33	0.64	0.46	0.45	0.68	0.67	0.80	0.84	0.78	0.84	0.97	0.94	0.84	0.87	0.85	0.87	0.68	0.92
Infrastructure	0.47	0.41	0.61	0.41	0.53	0.82	0.77	0.70	0.87	0.60	0.72	0.85	0.85	0.62	0.65	0.71	0.77	0.92	0.96	0.82	1.00
Human capital	0.71	0.54	0.62	0.73	0.68	0.76	0.81	0.81	0.81	0.91	0.87	0.86	0.88	0.91	0.91	0.85	0.86	0.86	0.94	0.85	0.93
Goods market efficiency	0.47	0.49	0.59	0.51	0.62	0.53	0.69	0.70	0.63	0.68	0.80	0.73	0.76	0.89	0.76	0.83	0.78	0.84	0.87	0.79	0.88
Labour market efficiency	0.36	0.36	0.27	0.27	0.53	0.45	0.47	0.61	0.56	0.60	0.84	0.64	0.78	0.84	0.79	0.85	0.69	0.69	0.72	0.88	1.00
Financial market development	0.00	0.49	0.39	0.15	0.63	0.33	0.27	0.56	0.59	0.87	0.91	0.65	0.63	1.00	0.82	0.69	0.75	0.65	0.56	0.91	0.79
Technological readiness	0.59	0.28	0.37	0.59	0.57	0.77	0.75	0.77	0.85	0.79	0.84	0.89	0.92	0.86	0.92	0.97	0.95	0.81	0.91	0.85	0.97
Business sophistication	0.31	0.43	0.39	0.66	0.41	0.53	0.65	0.66	0.74	0.61	0.70	0.97	0.86	0.65	0.84	0.91	0.87	0.99	0.92	0.93	1.00
Innovation	0.24	0.28	0.28	0.43	0.31	0.39	0.72	0.63	0.73	0.63	0.65	0.92	0.80	0.62	0.77	0.78	0.91	0.93	0.88	0.95	1.00
Aggregate score	0.39	0.40	0.44	0.45	0.55	0.56	0.62	0.68	0.72	0.72	0.80	0.81	0.81	0.82	0.82	0.83	0.83	0.84	0.85	0.85	0.94

- The scores achieved by individual countries often tend to be reasonably consistent across categories.
- The best infrastructure is to be found in Switzerland, the Netherlands, and Japan.
- The most innovative economies are Switzerland, the US, Japan (closely followed by Germany).
- The highest overall structural policy scores are achieved by Switzerland, the US, and the Netherlands; the lowest in Greece, Mexico, and Turkey.

Source: Constructed by Llewellyn Consulting

Notes: Data have been normalised using the min-max method, and are expressed as 0-to-1 scores (best = 1.0; worst = 0.0). Dark green (red) = a score among the best (worst) three scores out of a wider sample of OECD and non-OECD economies. Light green cells = average or above average scores. Pink cells = below average scores. The aggregate score is the (unweighted) average of all the indicators for each country.

Portfolio rebalancing

Government bond yields have latterly rebounded from their absolute lows of the middle of 2016, but remain historically depressed. These low yields have acted to sustain the gains made by riskier assets.

Low bond yields have encouraged investors into riskier assets …

In some cases, corporate yields had dropped by even more than government yields, with especially noteworthy declines in risk premia for sub-investment grade corporates in the US and the euro area.

This has also encouraged corporate issuance to rise to record levels, especially for securities with lower ratings and lighter covenants.

Historically-low rates have furthermore raised the present value of expected future profits and encouraged portfolio rebalancing towards equities, while equity prices have benefitted from a sustained rise in profit share at the expense of labour share. In the US, for example, profit share trended upwards from the mid-1980s. It suffered a sharp correction in 2008 and 2009, but subsequently rebounded to a new post-war high, from which it has barely corrected. (Figure 8).

Turning to property, real house prices have proved especially strong in Australia, New Zealand, Canada, Germany, Sweden, the US, and the UK. Indeed, in some instances the rate of increase has been similar to that prior to the GFC.

… including stocks, corporate debt, and real estate

Clearly, there is a risk that any normalisation of these asset price developments proves destabilising. A further jump in bond yields could be exacerbated by liquidity shortfalls in the face of reduced capacity and willingness to warehouse risk on the part of market-makers, the rise of algorithmic trading, and the increased holdings of bonds on central bank balance sheets. And, of course, higher bond yields will depress valuations in other asset markets by increasing discount rates, encouraging risk aversion, and prompting exchange rate shifts.

Summary: *Historically low interest rates have encouraged investors into riskier assets.*

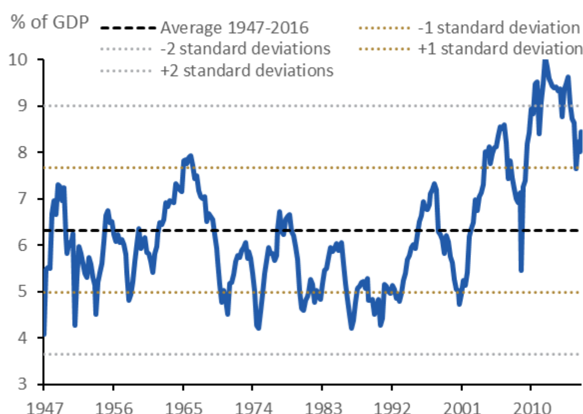
Principal tail risk: *A repeat of the acute market turmoil of 2008 and 2009.*

Lower returns in context

The slow nature of policy change is acting to cap bond yields …

It is difficult to see today's low-growth, low-yield environment unwinding in a persistent and dramatic manner, despite some pick up in the pace of global economic activity in recent months. There is little evidence, so far at least, that requisite policy adjustments to spring the slow growth trap are imminent. Change seems likely to be at best evolutionary and uneven, and at worst beset by enduring inconsistencies and inertia. Indeed, there is a sense that, for the necessary policy shifts to be accelerated, the global environment would first have to deteriorate. Perhaps only a renewed global downturn would be sufficient to concentrate policymakers' minds.

Figure 8: US corporate profit share in GDP



Source: FRED database

Notes: Corporate profits after tax with Inventory Valuation Adjustment (IVA) and Capital Consumption Adjustment (CCAdj)

Figure 9: Prospective indicative US total return scenario analysis

Annual averages		1985 - 2016	2017-35 Slow	2017-35 with reform
Real GDP Growth (%)	US	2.6	1.75	2.0
	ROW*	3.0	2.1	2.5
Inflation (%)		4.3	1.5	2.0
Nominal interest rates (%)	Start of period	11.2	2.5	2.5
	End of period	2.3	2.0 – 3.5	3.5 – 5.0
Margins (%)**	Start of period	5.3	10.0	10.0
	End of period	10.0	7.5 - 8.5	8.5 - 9.5
Equity returns (%)		7.9	3.5 - 5.0	5.0 – 6.0
10-year Government bond returns (%)		5.0	-0.5 – 1.0	0.5 – 2.0

Source: Dimson-Marsh-Staunton Global Returns database

*Notes: *G-20, less the US.**Defined as net operating profit less taxes*

Hence, bond yields may have bottomed out, and there is the potential, at least for a while, for yields in some countries, not least the US, to move some way beyond current levels, with commensurate losses for holdings of fixed income securities. But whatever the immediate cyclical pressures on long-term rates, the longer-term environment seems likely to remain one in which yields oscillate within an historically low range, with average real returns on bonds reflecting this. In the US, for example, a range of -0.5% to 1% per year, rather than the recent average of around 5% per year, would appear to be more reasonable for the future.

… and soft top-line growth and thinner margins will hamper stocks

Turning to the prospects for equity markets, as indicated in the US scenario analysis presented (in Figure 9), the outlook is similarly at variance with the recent experience. The extraordinarily beneficial confluence of circumstances that has sustained real stock returns at historically high levels over recent decades and into the post-global financial crisis period seems largely to have run its course. The sharp falls in inflation and interest rates are set partially to reverse. With underlying economic growth rates lower, the previous widening of profit margins seems set to reverse, at least to some extent.

Summary: *Lower growth potential renders lower asset returns unavoidable.*

Principal tail risk: *Stocks suffer an extended period of negative returns.*

Meeting yield-seekers' demands

Investors are likely to remain hungry for yield in EMs and alternatives

These considerations suggest that the anxious search for yield and return of recent years will continue. That in turn implies continued interest in EM and other, alternative assets, all of which have their own idiosyncrasies and drawbacks.

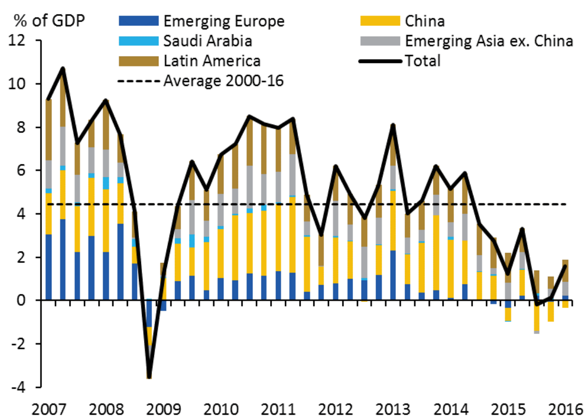
Net capital flows into the EM economies have been strong over the past 15 years or so, albeit with some fluctuations (Figure 10). Pressure will remain on EMs to liberalise their financial systems and offer a broader range of liquid, transparent, and better-regulated securities markets, especially in the area of fixed income. The shortage of global safe havens and trusted stores of value suggests that a particular area of international interest will be the sovereign, semi-sovereign, and high-grade corporate debt markets of China and other more mature developing economies, not least those elsewhere in Asia.

Emerging market assets are by their nature relatively risky

However, there are major concerns. The relatively high returns on such assets come with elevated risks. These economies are less competently run than many advanced OECD economies, and are by their nature more volatile and vulnerable to shocks. At the same time, changes in the policies of the major central banks, in particular the Fed, are an inescapable source of stress, and of late the financial linkages between the EM and advanced economies have, if anything, increased.[11]

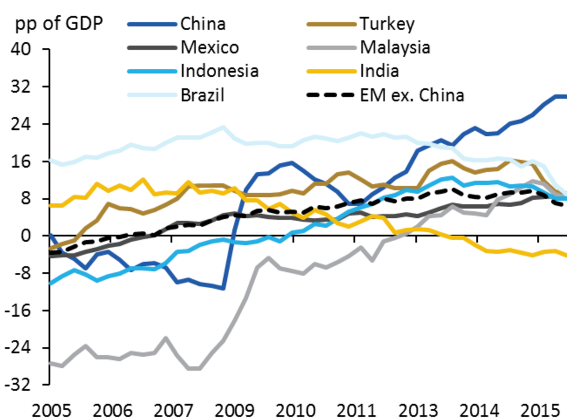
Furthermore, over recent years the EM economies have been indulging in a debt binge that seems destined to unwind, with potentially damaging implications (Figure 11). This is particularly the case in respect of corporates. Since 2004, non-financial EM corporate debt has increased steadily, from $4 trillion to $20 trillion, with the bulk of the expansion in China. At the end of

Figure 10: Total capital inflows



Source: IMF WEO October 2016 and World Bank

Figure 11: Credit to GDP relative to long-term trend



Source: IMF GFSR 2016

2015, China accounted for some 70% of total EM debt, and the ratio of EM debt to equity had reached 75% (Figure 12).

Many EMs have indulged in a corporate debt binge ...

Debt service capacity is increasingly strained, however (Figure 13). In Q4 of 2016, the IMF estimated that some 11% of this debt was 'at risk', and that this poses a particular threat to domestic banks. The inevitable deleveraging process is unlikely to be smooth or rapid, and will almost certainly be associated with slower economic growth, if not more exaggerated traumas. Foreign investors, although still very much in the minority, stand to be hurt, and their appetite for these securities, at least for a period, diminish.

... and may now face burgeoning protectionism

Furthermore, EM economies are confronted by a new threat: a turn away from the globalisation of recent decades and a retreat into protectionism. Should the world descend into tariff and currency wars, bilateralism, and trade blocs, it is unlikely that these markets will be adequately liberalised and policed. Some could even become off-limits to external investors.

Summary: *Interest in riskier emerging market assets will remain strong*.

Principal tail risk: *A major credit bubble/balance sheet crisis overtakes the EM universe.*

Looking to alternatives

The list of alternative assets is long and getting longer ...

The potential pitfalls of EM debt suggest that the stretch for yield and future search for predictable cash flows will extend to other alternative asset classes. These include, but are by no means confined to:

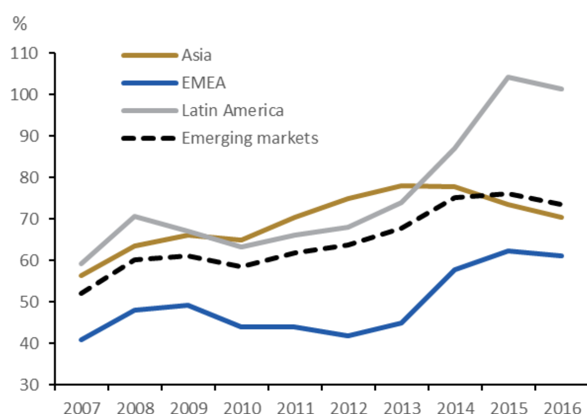
- Active currency investing
- High yield, or non-investment grade, bonds
- Covered and other asset-backed bonds
- Direct real estate investments
- Real estate investment trusts (REITs)
- Dividend and preferred stocks
- Private debt
- Distressed debt
- Hedge funds
- Private equity, from venture capital to buy-outs and distressed companies
- Infrastructure

All these asset classes are complex, and carry significant disadvantages and risks. Most are associated not only with high default risks, but also with limited liquidity, poor transparency, fewer benchmarks, performance measurement issues, higher fees, and a need for higher capital buffers to absorb their associated additional volatility. Some are also not admissible under prevailing investment parameters.

... and, despite their drawbacks, interest in them is on the rise

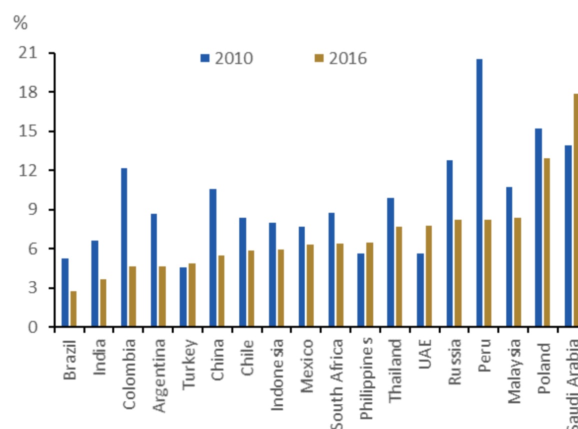
Nevertheless, such assets are already in demand. According to Towers Watson, the total assets

Figure 12: Debt as a share of equity by region



Source: IMF GFSR 2016

Figure 13: Interest coverage ratio by country



Source: IMF GFSR 2016

managed by the 100 largest alternative-asset managers rose to $3.6 trillion in early 2016, up some 3% year-on-year. The aggregate of alternative assets under management globally stood at

$6.2 trillion. Pension funds are the largest investors in 'Alts', accounting for some 40% of the assets of this kind managed by the top 100 alternative managers.[12] (Figure 14). Real assets of one form or another, hedge funds, and private equity, have in most jurisdictions proved the most popular unconventional investment options.

Infrastructure offers some attractive qualities …

One alternative investment that may prove more fertile than most among investors stretching for yield, and especially pension funds, is infrastructure. Such projects can be complex, involve a large initial capital outlay, and have to satisfy the double imperative of ensuring financial sustainability and meeting user needs and social objectives. On the other hand, investments in infrastructure extend to both equity and debt, and can offer extended duration, stretching to 25 or 30 years, if not longer.

The associated debt securities are issued by states, municipalities, utility companies, or Special Purpose Vehicles, secured on assets or contracts, and can provide inflation protection, in that the associated revenues are often combined with an inflation-adjustment mechanism, whether via regulated income clauses, guaranteed yields, or other contractual guarantees. Beyond the initial phase of development, they offer stable and predictable long-term cash flows that are inelastic and relatively uncorrelated with the business cycle.

… although more could be done to increase its allure to investors

The attractiveness of infrastructure as an asset class could be enhanced by:

- A greater number of large-scale projects
- Stability in fiscal and regulatory policy
- More government guarantees to ease up-front project risks
- More information on the previous performance of similar investments

The prospective pivot towards fiscal activism, and the desire on the part of many governments for greater private sector involvement in the provision of infrastructure, suggests that some of these issues will be addressed in the years to come.

Summary: *Lower returns in traditional asset classes means the demand for 'alternatives' will remain robust.*

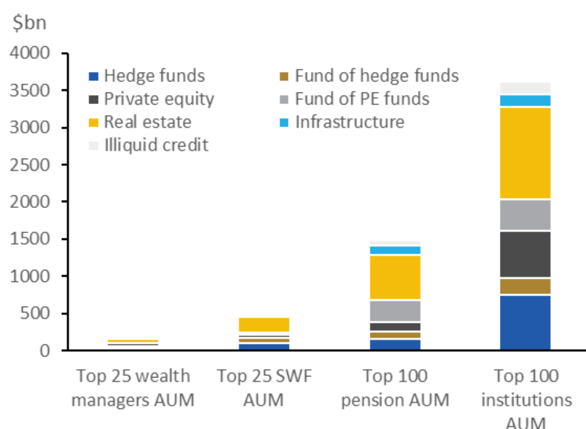
Principal tail risk: *Investors increasingly resort to financial engineering to sustain acceptable returns.*

A financial sector under duress

Low rates and returns imply tough challenges for the financial sector

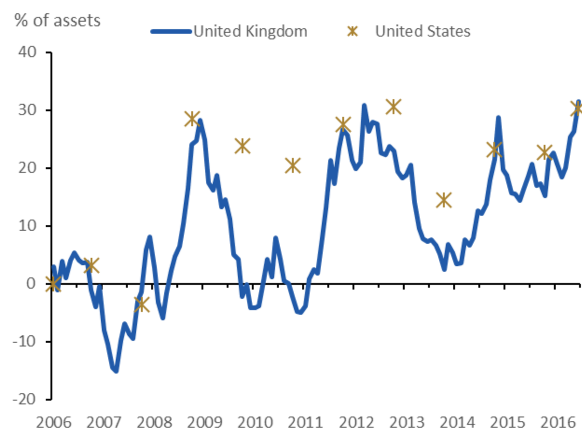
A low-growth, low-interest rate, low-return environment represents a major threat to the functioning of financial sectors, with associated negative feedback implications for the real economy.

Figure 14: Assets under management by alternative asset managers



Source: Willis Towers Watson and Financial Times

Figure 15: Funding gaps of defined benefit pension funds



Source: OECD Economic Outlook, November 2016

Banks, for example, face constraints on their profitability, which stand to raise the cost, and limit the availability, of credit, while the solvency of pension funds and insurance companies, whose longer-term investment horizon is considered in normal times to be a market stabiliser, is put under duress. These considerations can undermine private sector confidence. The precise effects on financial sector entities, individuals, and macroeconomies will depend on the nature of the prevailing institutional arrangements, and these differ greatly across countries. They will also depend on how long and how low interest rates stay, and on developments in areas such as wages and employment, while a lower rate environment reduces the leeway available to policymakers to deal with the other shocks to the system.

On the other hand, deregulation could provide something of an offset. Regulation represents one of the most conspicuous areas of cost for financial institutions and can prevent them pursuing the most profitable business model. The prospect of the dismantling of the Dodd-Frank Wall Street Reform and Consumer Protection Act could feasibly ease the pressures on at least some US financial firms.

This is particularly the case for pension and insurance companies …

Low interest rates generate particular difficulties for pension and insurance companies that have promised pre-crisis or fixed nominal returns. A fall in the discount rate increases the present value of liabilities of the defined benefit (DB) pension funds that in Europe account for some 75% of the sector's total assets, and of life insurance companies.

The impact is greater, the more significant is the share of liabilities with fixed returns, or fixed benefits, the harder it is to renegotiate contracts, and the higher the share of fixed income investments in portfolios. Meanwhile, the damaging effects of low interest rates on pension funds will be exacerbated to the extent that they entered the crisis with unfunded liabilities.

Pension funds' funding gaps have widened across the OECD economies, and are now estimated to stand at some 30% of total assets in the UK and the US, adding to the challenges they already face from greater longevity. (Figure 15).

… and there is potential for negative feedback on to the economy

A further complexity is how to address these issues of pension fund sustainability without encouraging a further rise in saving rates or flows into safe haven assets that would only exacerbate the underlying problems of low growth and low rates, including for the public finances.

The best solution is to raise near- and longer-term growth potential, and thereby both encourage and enable a sustained rise in interest rates: but unless and until this occurs, the following initiatives, many of which are politically controversial, must necessarily be considered:

Pensioners' entitlements stand to be diminished …

For pay-as-you-go pensions, where today's contributions are used to fund today's pensioners, and which are widely used in the OECD, especially in public sectors:

- Reduce commitments
- Raise contribution rates
- Raise retirement ages better to reflect changes in life expectancy

For defined-benefit pensions:

- Adjust the commitments in new contracts and to future retirees. This will likely necessitate a rise in contributions and premia
- Raise retirement ages to reflect changes in life expectancy
- Modify contracts of existing retirees
- Raise the contributions of fund sponsors and plan members

… while investment funds feel compelled to take excessive risks

A danger is that, in their desperation to meet the challenges of low returns, pension funds pursue herd-like behaviour in searching for yield, and in the process acquire excessive holdings of high-risk, illiquid assets prone to shocks and fire sales. At the end of 2015, pensions were already exposed to alternative investments of a total value of more than $6 trillion, or around 25% of total assets.

Summary: *In a low-return world, pension and insurance companies face acute challenges.*

Principal tail risk: *Major global players in the pensions or insurance market are forced into insolvency, necessitating rescue.*

Some countries will fare better than others

The world faces a 'bubbly' equilibrium

In this risky future environment, in which financial markets stand to be mired in a persistently 'frothy equilibrium', some economies are likely to handle this risky world better than will others.

… in which those with good policies will fare best

It is possible, to some extent at least, to identify those economies that are best equipped to cope with such a challenging environment. These will be those that exhibit the greatest dynamism and ability to absorb shocks, while having the latitude to pursue a more constructive fiscal/monetary policy mix.

The best structural policy frameworks and incentive structures seem to be in Switzerland, the US, and the Netherlands, closely followed by Japan, Sweden, and the UK. The worst are in Greece, Mexico, and Turkey, followed by Italy, Chile, and Spain. There is however the possibility, not least in the US and UK that, given recently-enunciated policy priorities, these settings could deteriorate.

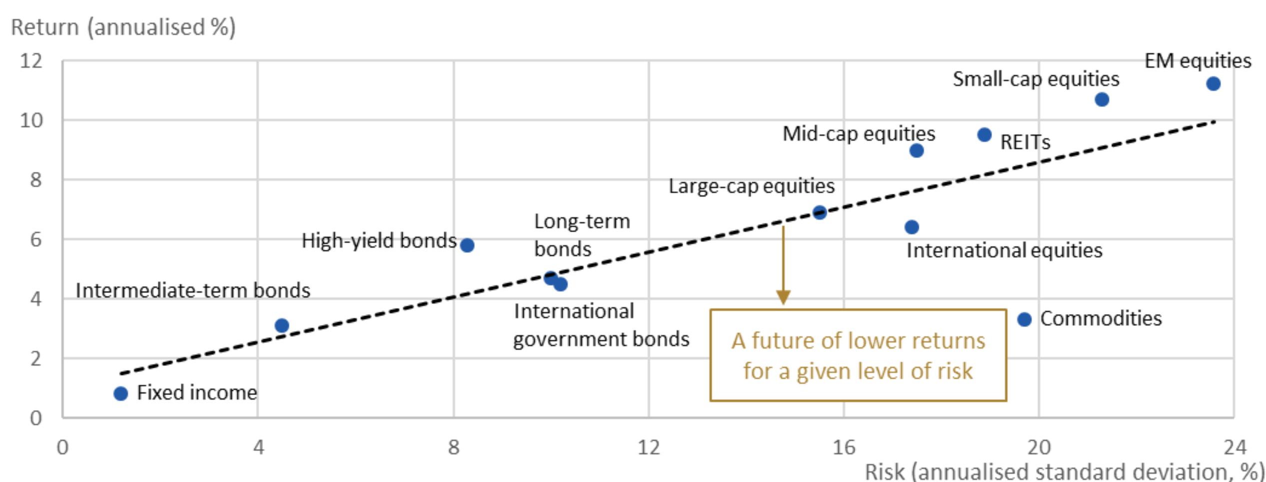
As regards fiscal space, the greatest room is to be found in Switzerland, Sweden, and Korea, followed by Germany and Denmark. Furthermore, fiscal expansion in a number of these economies would be likely to prove especially efficacious. That said, in Switzerland and Germany at least, the ideological objections to fiscal activism are deep-seated. Ironically, it is often those countries that seem to have the most limited fiscal space, the flimsiest case for using it, or indeed the most obvious constraints on its efficient employment that are most inclined to resort to it.

Combining these judgements on both structural policy integrity and fiscal flexibility, it appears that, at least in principle, Germany, Switzerland, and Sweden, and to a lesser extent Norway and the Netherlands are best placed to weather a low return world. (Figure 16).

Summary: *Investors will increasingly favour those economies with the best combination of demand and supply-side policies.*

Principal tail risk: *Economic performance becomes increasingly heterogeneous and divergent across the OECD economies and beyond.* ■

Figure 16: CPI-adjusted risk-return performance, 1973-2015



Source: Michaud, Michaud, and Ryabinin, 2016. Fi360 Asset Allocation Optimizer: Risk-Return Estimates.

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John Llewellyn, Partner

- Former global chief economist and senior economic policy adviser at Lehman Brothers.
- Almost 20 years at the OECD in Paris, where variously he was head of international forecasting and policy analysis, editor of the OECD Economic Outlook, deputy director for social affairs, manpower and education, and finally chef de cabinet to the Secretary-General.
- Spent nearly 10 years at the Faculty of Economics of the University of Cambridge.

Russell Jones, Partner

- Spent ten years at Lehman Brothers, where he was chief economist for Asia and head of foreign exchange research, and for a period was chief economist for the Treasury Department of the Abu Dhabi Investment Authority.
- Most recently, he was global head of fixed income strategy at Westpac Institutional Bank, where his team was ranked number one in the analysis of the Australian and New Zealand debt markets.
- Published widely, and recently written a book – *The Itinerant Economist*.

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