

## WILL DEBT BE A DRAG?

## Dealing with the upward drift in government debt

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### IN BRIEF

- Developed economy governments appear generally reluctant, or simply unwilling, to tackle the large stock of public debt that accumulated during the global financial crisis.
- We examine successful public debt consolidations since the 1950s, separating out the contributions made by financial conditions (interest rates vs. growth) from active fiscal policy (i.e., raising the budget balance).
- Recent case studies underscore that favorable monetary policy and a positive growth backdrop are important for debt consolidation. Government belt-tightening is also a common feature.
- Debt consolidation is not a foregone conclusion. But if it does occur in the coming decades, given fiscal spending constraints, it will be likelier for economies with a more favorable mix of interest rates relative to growth, or a tailwind from currency depreciation.
- We view any debt consolidation over the next 10 to 15 years as a mild downside risk to our interest rate projections. Extreme political pressure on central banks to keep rates low so as to keep debt growth in check could pose a challenge to central bank independence.

## WHAT DO SUCCESSFUL DEBT ADJUSTMENTS LOOK LIKE?

The U.S. is currently deploying a significant and unfunded tax cut. Voters in Europe are demonstrating austerity fatigue. And Japan is still kicking the can down the road. Clearly, developed market (DM) governments are generally reluctant, or simply unwilling, to tackle the large stock of public debt accumulated during the global financial crisis (GFC). We document this drift in government priorities and then ask: What would a successful debt consolidation look like?

What are the key characteristics of adjustment paths, in which government debt stabilizes and then falls from high levels in an environment of relatively strong growth? History suggests the following ingredients, which fit into the common framework for thinking about debt sustainability:

1. Loose monetary conditions – a falling and sometimes artificially constrained real interest rate (e.g., the U.S. post-World War II)
2. Targeted fiscal policy, including cuts to entitlements that in some cases promoted labor force participation (e.g., Belgium and Canada in the 1990s)

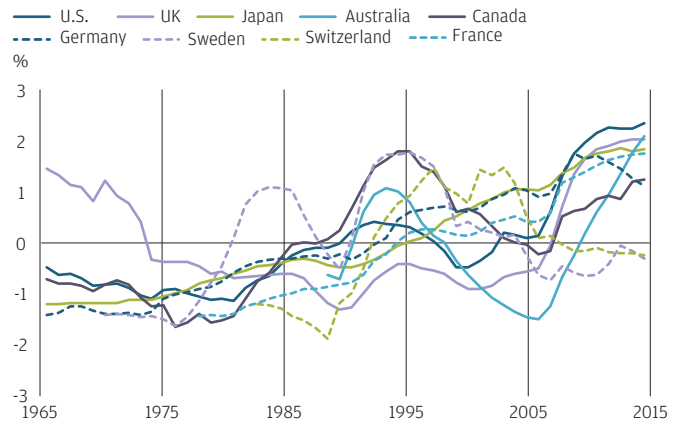
We discuss the likelihood of either of these in the context of our long-term macroeconomic and market expectations. We build a case that much of the burden of debt consolidation in the coming decades will fall on the central banks, in the form of pressure to maintain loose monetary conditions. Economies with a more favorable balance between interest rates and growth, or those experiencing a tailwind from currency depreciation, have the highest odds of successfully consolidating debt. We view this potential future pressure on central banks as a mild downside risk to our rates projections and, in its extreme form, as a possible challenge to central bank independence.

### Documenting debt drift

Our empirical starting point is the observation that general government debt, as a share of GDP in developed market economies, has continued a long-term upward trajectory – what we’re calling debt drift. The buildup in debt that took place during the global financial crisis has not been unwound (**Exhibit 1**). Below the surface of this trend, debt levels in the U.S., UK, France, Australia and Canada have continued rising in recent years; levels in Japan have remained relatively stable; and in Germany debt has fallen steadily. Sweden and Switzerland did not undertake significant buildups in debt during the financial crisis period, and their debt remains near levels of the mid 2000s.

### Debt continues to drift upward in most DM economies

**EXHIBIT 1: TRAJECTORY OF DEBT AS % OF GDP, STANDARDIZED**



Source: IMF Fiscal Monitor, J.P. Morgan Asset Management; data as of August 2018.

Exhibit 1 also highlights the extent to which higher levels of government debt today are part of a longer-term, secular trend of rising debt. DM country debt levels in the 1960s and 1970s (with the exception of the UK) were roughly one standard deviation below their long-run averages for the 50 years between 1965 and 2015. This is an important qualifier for our results. Sustainable levels of debt may have increased in recent decades, and periods of relatively high debt may persist for some time.

Having documented the rise in debt, it is helpful to disentangle its underlying drivers. To do so, we follow an accounting framework that parses changes in the debt-to-GDP ratio, separating out contributions from the real interest rate, real GDP growth and the government’s primary balance (the fiscal balance excluding interest payments) (**Exhibit 2**). The primary balance contains a cyclical component, reflecting how government finances deteriorate during periods of economic contraction and improve during expansions, and a structural component that more reflects the role of policy.

### Debt is reduced when the real interest rate is below GDP growth or when policy tightens

**EXHIBIT 2: GOVERNMENT DEBT ACCOUNTING FORMULA**



Source: J.P. Morgan Asset Management; as of October 2018.

During the recent years of debt drift, looser fiscal policy played an overwhelming role. We know this because other factors leaned against it. For one, the balance of real interest rates and growth has generally been exerting downward pressure on debt levels. We estimate that from 2010-17 the fact that growth rates were higher than prevailing interest rates subtracted an average of 1.2 percentage points (ppt) annually from debt-to-GDP levels in each country (Exhibit 3). The cyclical aspect of the primary surplus added slightly to debt over this period as a whole (0.4ppt), but it has swung to become a force for debt reduction in recent years, particularly in the U.S., Germany, Canada and Sweden. In stark contrast, since 2010 the policy component of the primary balance has added 1.3ppt to debt levels annually, on average, for each country. All in all, monetary, growth and cyclical conditions have been generally favorable for debt consolidation, but both have been overwhelmed by sustained shifts in fiscal policy.

**During recent years of debt drift, looser fiscal policy played an overwhelming role**

**EXHIBIT 3: DRIVERS OF CHANGE IN DEBT-TO-GDP RATIO**

Debt/GDP drivers (2000-17)	Impact on debt-to-GDP (avg, annual, per country)
Growth rates higher than interest rates	-1.2ppt
Cyclical component of primary balance	+0.4ppt
Policy component of primary balance	+1.3ppt

Source: IMF Fiscal Monitor, J.P. Morgan Asset Management; data as of August 31, 2018.

**Will large amounts of debt today restrain growth in the future?**

It seems natural to conclude that government debt will necessarily restrain future growth – that lower taxes today will mean higher taxes in the future to ensure that debt is repaid – so that growth today comes at the expense of growth tomorrow. But history tells us this is not necessarily the case. In a number of instances in the past, high debt levels were tackled without significantly impeding growth.<sup>1</sup>

We use the deconstruction of debt-to-GDP ratios discussed above to characterize these successful consolidations going back to the 1950s. By doing so, we are able to separate the contributions of financial conditions (i.e., rates vs. growth) from those of policy (i.e., primary surplus) in pushing down debt levels (Exhibit 4). Notably, of the 14 successful debt consolidations that we identify, 13 occurred during periods of relatively tight fiscal policy (high primary surpluses), suggesting that at least some belt-tightening is necessary. The number of consolidation experiences that took place amid relatively low vs. relatively high rates is evenly split, implying a significant – but not necessary – role for low rates relative to growth. To shed light on the mechanics of consolidation, we describe selected cases from the lower two quadrants in Exhibit 3 (see Addendum, Exhibit 8 for information on all 14 cases).

<sup>1</sup> The evidence for debt’s feedback into future growth is mixed and fraught with difficulties in identifying whether or not the relationship is a causal one. This paper considers the narrower but more cleanly defined episodes of successful consolidation. Given the focus on DM economies, debt crises and their effects on growth and markets are outside the scope of the paper.

**Policy tightening or favorable financial conditions are necessary – sometimes both**

**EXHIBIT 4: SUCCESSFUL CASES OF DEBT CONSOLIDATION AND THEIR ECONOMIC AND POLICY ENVIRONMENTS**

Neutral/high interest rates vs. growth		Low rates vs. growth
<p>Less</p> <p>↑</p> <p>Neutral policy</p>		Switzerland (1999-2007)
<p>More</p> <p>↓</p> <p>Tight policy</p>	<p>Sweden (1985-90)</p> <p>Belgium (1994-2007)</p> <p>U.S. (1994-2001)</p> <p>Australia (1995-2007)</p> <p>UK (1996-2001)</p> <p>Canada (1997-2007)</p> <p>Japan (2006-07)</p>	<p>U.S. (1955-69)</p> <p>Canada (1962-69)</p> <p>Japan (1988-91)</p> <p>UK (1987-90)</p> <p>Sweden (1997-2008)</p> <p>Germany (2012-17)</p>

Source: IMF Fiscal Monitor, Haver Analytics, J.P. Morgan Asset Management; data as of August 2018.

### Tight policy/low interest rates vs. growth: The U.S.

The U.S. experience post-World War II is one of the most dramatic examples of debt consolidation. In 1946, government debt was 120% of GDP and the primary balance was a deficit equal to about 5% of GDP. Then, in the following few years, the primary balance swung dramatically into a surplus of more than 6%. The primary balance remained in surplus throughout much of the 1950s and 1960s; by 1969, government debt was down to 46% of GDP. Over this postwar period, monetary conditions were kept artificially loose, with Washington propping up government bond prices, continuing a policy put in place during the war. This prevented the Federal Reserve (Fed) from raising interest rates. Instead, the Fed attempted to curb excess credit growth through lending constraints. This had only limited success, and inflation spiked as economic recovery took hold. While it lasted, though, robust nominal activity combined with low interest payments contributed to the substantial fall in government debt.

### Tight policy/neutral or high interest rates vs. growth: Belgium

Belgium experienced an expansion in government debt, to more than 100% of GDP, in the 1980s. In the years that followed, the Belgian government embarked on a tough deficit reduction plan that focused on reducing government spending. Public employment was scaled back, as was the generosity of the welfare state. Unemployment benefits were reduced, the retirement age was increased and, eventually, the cuts stretched to pension and health care costs. These efforts saw the primary balance swing by more than 11ppt into a primary surplus, where it remained for much of the next two decades. Despite the significant fiscal tightening, the debt-to-GDP ratio remained elevated as the economy struggled to cope with the combination of fiscal contraction and very tight monetary policy. It was only when monetary conditions eased in the mid 1990s that the fiscal efforts paid off and debt began falling.

By the mid-1990s, many other developed market nations were also focused on reducing the government debt accumulated during the early 1990s global recession. But for many, the debt problem was relatively short-lived. By the turn of the millennium, many countries – including Canada, the UK, Australia and Sweden – had managed to successfully change course and debt-to-GDP was falling.

This often involved a concerted fiscal effort, as in Belgium. The Canadian government directed its efforts to reducing public spending in difficult areas such as unemployment insurance, pensions and provincial government payments. This helped a primary deficit swing back into surplus. Other G7 countries, including the UK and Italy, saw similar improvements in their fiscal position, again after some tough political choices that reduced entitlements.

What all these fiscal consolidations had in common was a marked reduction in government spending on interest payments, reflecting the secular trend of falling bond yields. The shift toward independent central banks – mandated to deliver low inflation – coincided with a steady fall in bond yields through the 1990s, and both go a long way toward explaining the global growth performance and subsequent fiscal consolidation over that decade. We also note the possibility that falling bond yields likely increased the level of debt that economies could sustainably carry during the period that we examined.

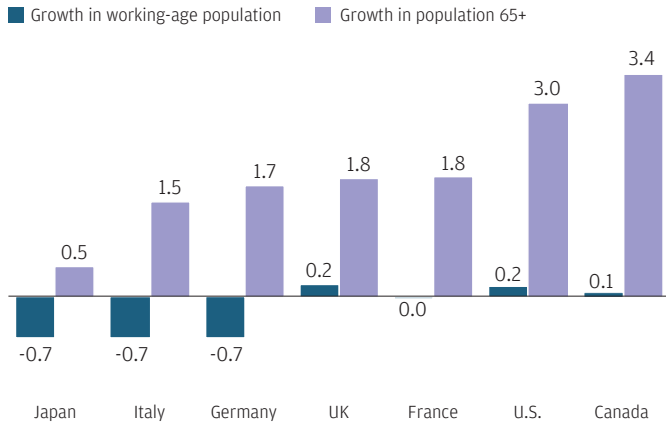
Considering these case studies, it appears possible for a government's debt burden to come down in a manner not detrimental to growth. The U.S. success relied on a good dose of unexpected inflation, but the other examples of debt consolidation have two things in common. First, governments made difficult political choices to reduce entitlements and bring down their spending. In many instances, because these changes increased workforce participation, they improved the supply side of the economy. Second, and perhaps more importantly, tight fiscal policy was accompanied by relatively low rates, which promoted demand to compensate for the reduction in public spending.

### What are the chances of successful DM debt consolidation in the coming decades?

We conclude with a rough assessment of DM economies' ability to replicate the successful consolidation experiences of the past and, where it is likely that they can, what conditions would be necessary. To begin, the ability of the governments in the developed world to improve their primary balance position looks challenging on a number of fronts. The most acute challenge is the demographic shift set to take place in the coming decades. While the severity of the problem differs by country, all countries in the developed world are seeing a slowing rate of growth of their working-age populations and a rapid expansion of those of pensionable age (**Exhibit 5**).

**A ubiquitous, though uneven, rotation in entitlement spending**

**EXHIBIT 5: DEMOGRAPHIC TRANSITION IN DEVELOPED MARKETS (% , AVERAGE ANNUALIZED GROWTH, 2018-28)**



Source: United Nations Department of Economic and Social Affairs, J.P. Morgan Asset Management; data as of July 31, 2018.

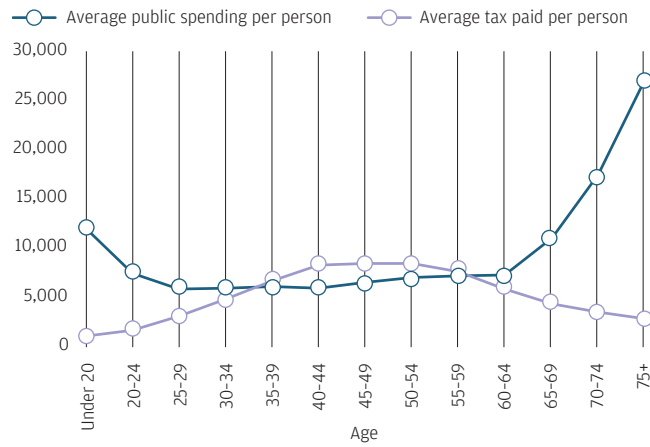
This demographic shift will have a material impact on public finances. **Exhibit 6** shows how tax payment and public spending vary by age in the UK. Tax contributions peak at around 50 years of age and then slow dramatically from the mid 60s, at which point many people no longer pay income tax (note that governments also receive taxes to fund spending from other sources, including corporations). By contrast, government spending per person increases substantially from age 70 as the provision of health and social care ramps up. Given that around half of those eligible to vote in the developed world are older than 50, governments are likely to find reducing pension and health care benefits politically challenging.

Further reducing benefits currently granted to the working population seems similarly challenging. Income growth for middle and lower income households has been very meager in this recovery in much of the developed world. This has contributed to the recent spate of populist pressures and the backlash against migration and globalization. If anything, the trend may be for some governments to increase support for low income households through guarantees of a minimum income, as was recently proposed in Italy.

While there are multiple structural downside risks to DM public finances, it is harder to identify upside risks. Perhaps in the near term a recovery in productivity is possible, which would raise GDP and, in turn, government revenues – though productivity has been lacking through much of this recovery and it is difficult to rely on a phenomenon whose drivers are little understood.

**Government spending ramps up dramatically over the life cycle**

**EXHIBIT 6: DEMOGRAPHIC DRIVERS OF GOVERNMENT SPENDING AND TAXES IN THE UK (GBP)**

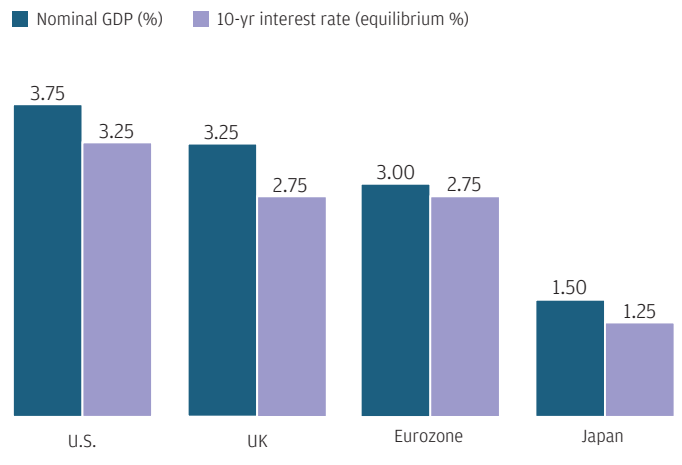


Source: Office for Budget Responsibility, Her Majesty's Revenue and Customs (HMRC), J.P. Morgan Asset Management; data as of July 31, 2018.

Finally, we note that in our 2019 baseline Long-Term Capital Market Assumptions (LTCMAs) macroeconomic assumptions – which link nominal GDP and interest rates as a matter of methodology – we do not anticipate a significant tailwind from financial conditions. In other words, we do not pencil in large imbalances between growth and interest rates (**Exhibit 7**). Should the next recession cause liquidity-trap dynamics like the post-GFC period's, leading to a sustained period when rates are lower than growth, we see little potential upside from the perspective of public debt consolidation. Such a dynamic would likely be accompanied by either a deep recession (requiring a big fiscal response) or by pressure on fiscal authorities to make up for less-effective monetary policy.

**Big imbalances are not in our baseline projections**

**EXHIBIT 7: LTCMA ASSUMPTIONS FOR NOMINAL 10-YEAR RATES MINUS NOMINAL GDP GROWTH**



Source: J.P. Morgan Asset Management; data as of October 2018.

## CONCLUSION

The picture we've painted presents something of a quandary for DM economies, where debt is drifting higher but neither belt-tightening nor outsize contributions from financial conditions would be sufficient to cap it. Achieving the required primary fiscal surplus looks incredibly challenging in the developed world, given an aging electorate that will defend its entitlements at the ballot box. Globalization and automation, and the resulting social challenges, may also make it hard to reduce the generosity of the welfare state. Boosting trend growth using fiscal policy is difficult and has yielded a mixed bag of results in the past.

This leads us to our conclusion that if debt consolidation is going to happen in the coming decades, the bulk of the burden will need to be shouldered by monetary conditions, and we expect this would encompass both implicit and explicit pressure on central banks to provide the solution. In theory,

monetary policy should remain independent, focused on the objective of containing inflation (and sustaining employment, in some cases). The reality, however, might prove trickier. Any efforts to rein in primary balances will reduce short-term growth and lead central banks to adopt more accommodative monetary policy stances – and political pressure to keep rates low cannot be ruled out. Currency trends will redistribute demand in a way that creates winners and losers vis-à-vis public debt consolidation.

In our baseline LTCMA macroeconomic assumptions for DM economies, public debt burdens do not feed back unduly into growth or inflation projections, or our expectations for monetary policy outcomes. Indeed, the trend toward higher debt burdens may well be borne for some time. But in time, efforts to consolidate debt are likely to present downside risk to interest rate projections, growth or both.

### Addendum

#### EXHIBIT 8: SUCCESSFUL CONSOLIDATIONS

Debt/GDP drivers (2000-17)	(Debt/GDP) <sub>t-1</sub>	Δ(Debt/GDP)	g	r	r-g	r-g (vs. all t)	PS (cyclical)	PS (structural)	PS (vs. all t)	ΔBroad FX
U.S. (1955-69)	73	-1.8	4.2%	2.2%	-2.0%	-1.3%				
Canada (1962-69)	68	-1.6	5.7%	5.0%	-0.7%	-2.4%				
UK (1987-90)	40	-3.2	3.6%	3.3%	-0.2%	-0.1%	1.7	-1.4	0.6	2.2%
Japan (1988-91)	77	-3.4	5.0%	3.2%	-1.8%	-1.5%				4.7%
Sweden (1985-90)	61	-3.5	2.4%	5.4%	3.1%	2.1%				1.4%
Switzerland (1984-89)	34	-1.1	3.0%	1.9%	-1.1%	0.3%				3.7%
U.S. (1994-2001)	70	-2.1	3.7%	3.5%	-0.2%	0.5%	0.8	0.9	5.0	5.5%
UK (1996-2001)	43	-1.5	3.3%	4.3%	1.1%	1.2%	-0.5	1.8	4.1	4.7%
Australia (1995-2007)	32	-1.7	3.6%	3.6%	-0.1%	0.3%	-0.2	1.3	2.1	1.5%
Canada (1997-2007)	101	-3.1	3.3%	4.6%	1.3%	-0.4%	0.2	3.2	3.1	2.5%
Sweden (1997-2008)	69	-2.7	3.1%	3.0%	-0.1%	-1.1%	1.5	1.0	1.6	-0.2%
Switzerland (1999-2007)	60	-1.4	2.4%	0.4%	-2.0%	-0.6%	0.0	0.5	-0.1	0.7%
Belgium (1994-2007)	134	-3.4	2.5%	3.2%	0.8%	0.7%	-0.1	4.5	2.9	2.8%
Japan (2006-07)	177	-0.7	1.5%	1.0%	-0.5%	-0.3%	0.4	-3.2	2.6	-6.3%
Germany (2012-17)	81	-2.1	1.7%	-0.5%	-2.2%	-3.1%	0.1	1.7	1.3	-0.2%

Source: IMF Fiscal Monitor, Haver Analytics, J.P. Morgan Asset Management; data as of August 2018.

PS: primary surplus; g: real GDP growth; r: real interest rate.

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