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23 February 2018

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Sovereigns – Advanced Economies

Higher female labor force participation mitigates demographic pressures

In response to increasing demographic pressures, some governments have increased the policy focus on promoting greater female participation in the economy. Contingent on their success at changing behaviour at the individual and firm level, we expect these measures to boost sovereign creditworthiness via three main channels: economic growth by partly offsetting shrinking labor forces, government balance sheets by widening the tax base and easing pension pressure, and, potentially, financial stability by shoring up household finances.

Among high-income OECD economies,[1] we see the greatest scope for positive credit impacts in countries where populations are ageing fastest and where governments have highlighted female participation as a key priority, particularly Japan (A1 stable) and Korea (Aa2 stable).

» **Higher female labor force participation offsets shrinking working-age populations** Directly, a higher number of economically active individuals, all else being equal, increases output. We estimate that Korea's and Japan's potential growth could be 1.0 and 0.75 percentage points higher respectively if the gap between female and male labor force participation rates closed over the next 15 years. Evidence also suggests that higher female participation can boost productivity, for example when higher educated women become fully integrated into the work force.

» **Growth in revenue base enhances public finances** Raising female participation widens the tax base, which helps offset the negative fiscal effect of rising spending as the population ages. In turn, a broader revenue base mitigates the need for spending cuts or tax increases in order to preserve the health of public finances, which would hamper competitiveness. Policies to boost female participation entail near-term fiscal costs through infrastructure spending and fiscal incentives. While the nearer-term net fiscal impact depends on overall fiscal policy choices and cultures, longer-term we expect the boost to revenue from higher female participation to offset the initial costs.

» **Two workers per household would likely support financial stability** Household debt has increased in many advanced economies over the past decade. Higher debt has paralleled a general rise in female labor force participation, although it remains unclear whether higher participation has contributed to higher debt or vice versa or whether the two are, in fact, unrelated. Irrespective of causality, diversification of household income sources as a result of increased female integration into the labor market should act as a buffer to higher individual debt and consequently reduce the risk of broader financial instability.

Higher female labor market participation affects sovereign credit profiles through economic, fiscal and financial stability channels

Ageing populations in advanced economies constrain sovereign creditworthiness by reducing the labor force and impeding competitiveness, weighing on economic potential. Combined with a rise in ageing-related government expenditure and an erosion of the tax base, weaker economic growth in turn weighs on fiscal strength.

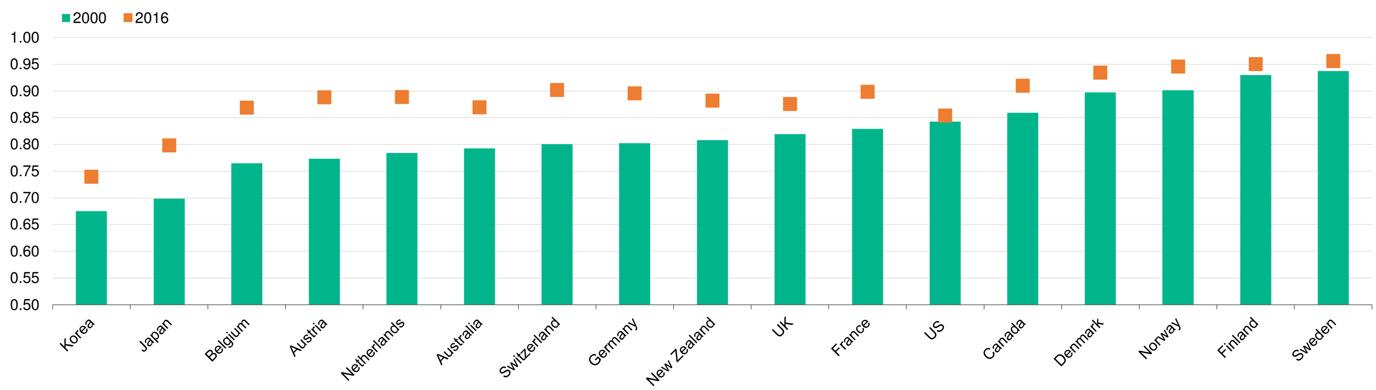
Faced with these increasing demographic pressures, along with a range of other drivers, some governments have started to incorporate measures in their budgets to promote greater female participation in the labor force. These measures include increasing education spending on schools and facilities for early childhood education, subsidizing childcare, and tax schemes that do not penalize second income earners. We expect the focus on boosting female, youth, and elderly employment in advanced economies to strengthen, particularly as promoting higher immigration rates as a solution to demographic pressures presents political challenges in a number of countries.

Women comprise over half of the world's population, but even in some of the most advanced economies their contribution to measured economic activity remains below potential. Overall labor force participation rates vary across advanced economies, but one pattern that is consistent everywhere is a lower participation rate among working age women relative to working age men. In the Nordic countries, female participation rates are close to those of males, while in other countries, in particular Korea and Japan, the gap is still wide (see Exhibit 1 and the box below on Japan's measures aimed at raising female labor force participation).

Exhibit 1

Relative female labor force participation rates are lowest in Korea and Japan

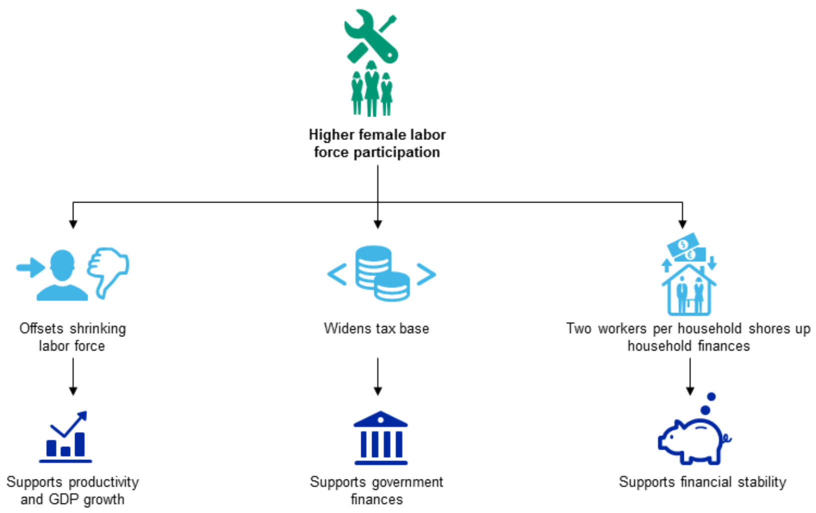
Labor force participation rate (female-to-male ratio), ages 15-64



Source: OECD

Rising female participation in the labor force can mitigate the effects of demographic pressures in different ways: first, by at least partly offsetting shrinking labor forces; second, by widening the tax base; and third, by shoring up household finances (see Exhibit 2).

Exhibit 2
Rising female labor force participation can mitigate the negative credit impact of ageing populations



Source: Moody's Investors Service

Japan's experience with "womenomics"

Japan has one of the largest gender gaps among advanced OECD economies, with a female labor force participation rate of 68.1% in 2016, compared with a male labor force participation rate of 85.4%. In the World Economic Forum's 2016 Global Gender Gap Report, Japan ranked 111th out of 144 countries, the second-lowest ranking among OECD advanced economies after Korea, which was ranked 116th. In the Economic Participation and Opportunity Sub-Index – which takes into consideration labor force participation rates, gender pay gaps, and representation of women in high-level positions – Japan ranked even lower, in 118th place (whereas Korea was in 123rd place).

That said, Japan has made strides in raising the female labor force participation rate, which was even lower at 63% in 2011, before the current administration took office. A key part of Prime Minister Shinzo Abe's economic reform program ("Abenomics") is a policy of "womenomics." Initiatives include increasing the availability of daycare and after-school care, recruiting and promoting women in the public sector, increasing childcare leave payments for new parents to 67% of their salary during the first six months of parental leave (from 50%), targeting an increase in the proportion of individuals taking paternity leave to 13% in 2020 from 2.6% in 2011, decreasing the tax disincentives for married women to participate fully in the labor market, and allowing more foreign housekeepers in special economic zones.

While female participation still lags that of males, Japan's gender budgeting policies are slowly bearing fruit. The female to male labor force participation ratio increased to 0.80 in 2016, from 0.70 in 2000 (a ratio of 1.0 would mean the female and male labor force participation rates are equal).

Higher female participation offsets shrinking working-age populations

Higher female participation means more workers and therefore output

Labor force growth is a key determinant of a given economy's growth potential. A higher number of economically active individuals, all else being equal, increases output. As such, higher numbers of female workers at least partly offset the negative impact of ageing of the overall population on growth.

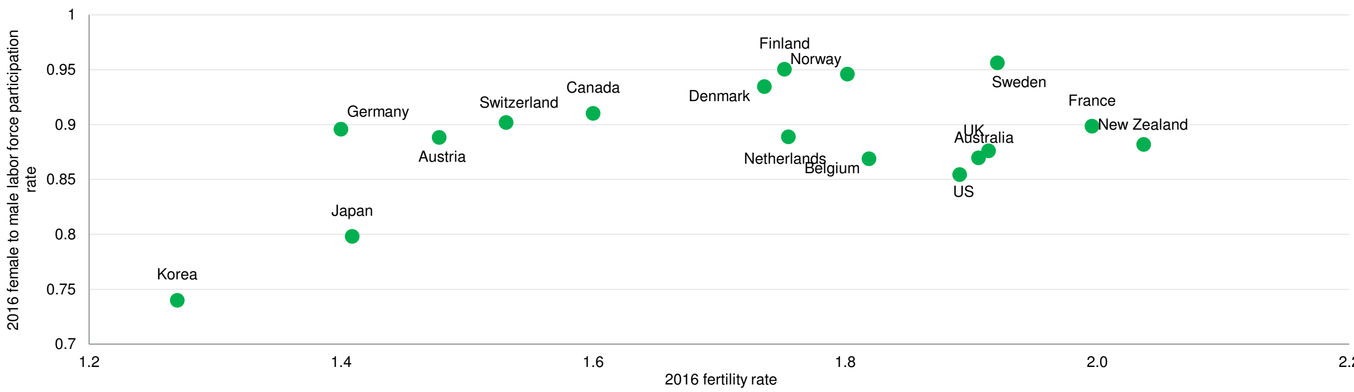
Numerous empirical studies have found that increased female labor inputs contribute significantly to economic growth, including where they may contribute to relatively higher fertility rates.

» Demographic pressures are exacerbated by low fertility rates, and some countries will face a shrinking labor force as a result. Fertility rates have dropped across the board, and are lowest in Japan and Korea.

» Among OECD advanced economies, fertility rates tend to be higher in countries with higher female labor force participation (see Exhibit 3). This could be because dual-income households in advanced economies are financially better positioned (and therefore more likely) to have more children.

Exhibit 3

Countries with higher female labor force participation generally have higher fertility rates



Sources: OECD, UN and Moody's Investors Service

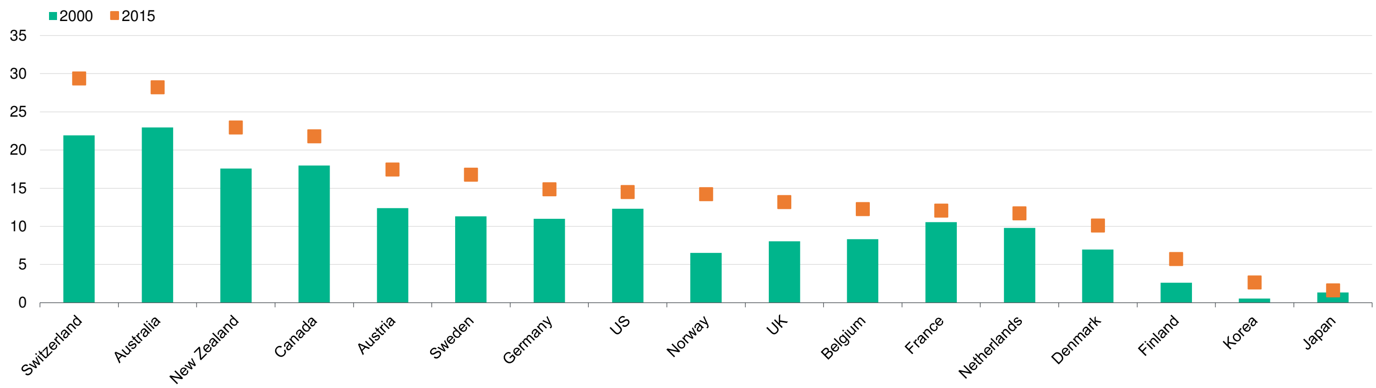
Beyond the potentially positive impact on fertility rates as a longer-term mitigant to ageing populations, a 2012 Booz and Company study[2] assessed the impact of boosting female employment rates to country-specific male levels, after adjusting for lower productivity rates of new female work force entrants and the likelihood that a proportion of women would, initially at least, choose to work part time. The study found that the level of US, Chinese and UK GDP would be 5% higher, that of Brazil and Japan would be 9% higher and that of India 27% higher.[3]

Two countries where the working age population is shrinking, Korea and Japan, have the most to gain from boosting female employment rates in the labor force. We estimate that Korea's potential growth could be 1.0 percentage point higher and Japan's 0.75 percentage point higher if the two countries were to close the gap between female and male labor force participation rates over the next 15 years (assuming no changes to productivity).

Immigration can also contribute to higher labor inputs

Immigration has also been an important growth driver in some countries over the past decade, in the UK (Aa2 stable) and Australia (Aaa stable) for instance (see Exhibit 4).[4]

Exhibit 4
Migrant workers can also offset demographic pressures
International migrant stock as a % of total population



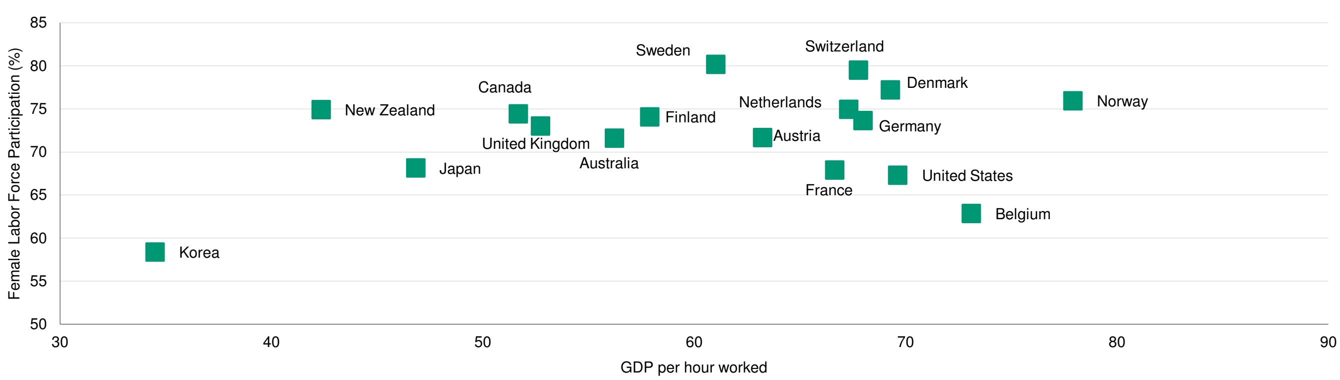
Source: World Bank

However, the potential for further alleviation of ageing work forces through immigration has become more uncertain given heightened political and social sensitivities made apparent in recent responses to heightened flows of refugees in various regions of the global economy. Immigration in Japan has increased recently, albeit from very low levels.

Higher female participation can also boost productivity

Lower female labor force participation tends to be associated with lower productivity outcomes in advanced economies (see Exhibit 5). Notably, Japan and Korea have lower than average female participation and also relatively low labor force productivity levels, while economies including Denmark (Aaa stable), Norway (Aaa stable) and Sweden (Aaa stable) experience high levels of both.

Exhibit 5
Higher female labor force participation tend to be associated with higher labor productivity
Female labor force participation (%) and GDP per hour worked, both 2016



Source: OECD

A recent International Monetary Fund (IMF) Working Paper found that an increase in the total hours worked by women in Canada contributed to around 30% of the country's GDP growth in the 1980s, and around 23% in the two decades that followed.[5]

The study also found empirical evidence that higher female labor force participation led to labor productivity growth, and that the correlation was strongest when looking at the increase in full-time employment of women with higher levels of educational attainment.

» If the gender gap between men and those women with higher levels of educational attainment were fully closed, the IMF paper estimated that Canada's GDP would be 4% higher today. This reflects a 1.8 percentage point impact from a higher female labor force and a 2.2 percentage point impact from higher labor productivity.

» The potential for significant further future gains to productivity from absorbing more women into the labor force is suggested by the fact that, across the G20, young women are currently relatively more educated than young men according to the OECD. [6]

Overall, this research illustrates that as well as boosting economic activity through the relatively straightforward impact of greater numbers of women in the work force there can also be a lift in overall productivity in an economy. This improvement might come through the avenue of improved average levels of skills in the economy and additionally if women begin to take up more senior roles reflective of their skills levels.

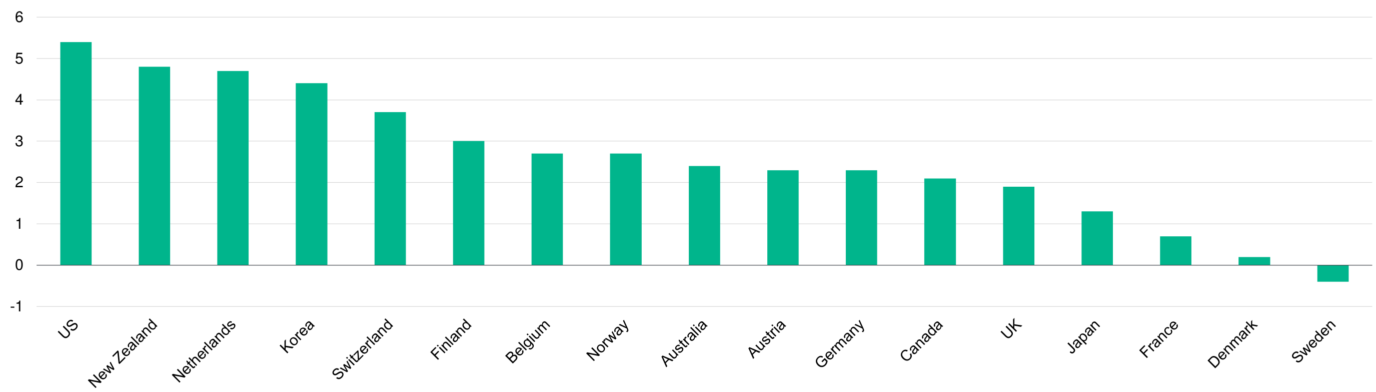
Growth in revenue base enhances public finances

Without offsetting changes in policies, countries with rapidly ageing populations will experience an increase in entitlement expenditure (see Exhibit 6) and a narrowing tax base. This could lead either to cuts in other productive government spending or tax hikes that would weigh on competitiveness and economic activity, in order to avoid a rapid weakening of public finances.

Exhibit 6

Pension and healthcare spending will rise in most countries

Expected change between 2015-30, % of GDP



Source: IMF

Because a higher female labor force participation rate would mean a larger and potentially more productive labor force contributing to retirement funds and healthcare provision, measures that boost female employment would alleviate medium-term pressure on social security systems and public finances.

Government policies that seek to boost female participation in the labor force are likely to entail near-term fiscal costs in countries where supporting infrastructure (in the form of child care and extended school hours, for example) is not already present. However, the longer-term benefits of an expanded labor force for both government finances and the economy more broadly are in our view credit positive.

The fiscal gains from closing the gender participation gap are significant

A 2017 International Labour Office (ILO) report [7] assessed the G20 leaders' commitment to a “25 by 25” target, to reduce the gap in participation rates between men and women by 25% by the year 2025. The ILO estimates that if the “25 by 25” target was achieved, global tax revenue could be US$1.5 trillion (around 1.3% of GDP in 2025, estimated using IMF forecasts as of January 2018) higher on the basis of current projections for government revenue shares in GDP. The lion's share would be in developed (US$530 billion or around 0.9% of advanced economy GDP in 2025) and emerging countries (US$990 billion). Revenue gains would result from higher employment and a related broadening of the tax base.

Net fiscal impact will be specific to fiscal policy choices and cultures in the short term, likely positive in the longer term

In the short to medium term, some government-led measures to raise female labor force participation rates have a fiscal cost. The mix of policy instruments used may include one-off spending on infrastructure such as pre-school buildings, or spending that would be difficult to reverse when no longer needed such as subsidies. The net fiscal impact depends on a range of factors, for example:

» Fiscal authorities focussing on gender equality, while maintaining overall fiscal targets for spending may adjust other areas of spending, with idiosyncratic outcomes for overall expenditures.

» The benefits to revenue accrue as female participation and productivity effectively rises. How fast this happens depends on the cyclical environment and on the speed of change in cultural and societal preferences.

From a longer-term perspective, we expect that the positive growth and productivity implications of higher female participation in the work force will offset the immediate fiscal costs of promoting such shifts.

Action is being taken to close the gap

Of the 35 members of the OECD, to date at least 12 have adopted official gender budgeting policies (which range from eliminating tax penalties on second household earners to increasing childcare benefits): Austria (Aa1 stable), Belgium (Aa3 stable), Finland (Aa1 stable), Iceland (A3 stable), Israel (A1 stable), Japan, Korea, Mexico (A3 negative), the Netherlands (Aaa stable), Norway, Spain (Baa2 stable) and Sweden - while some others have had such policies in place for some time. Of these countries, Austria, Iceland, Korea, Mexico, the Netherlands and Spain have provisions in their respective budget laws legally mandating gender budgeting to varying degrees. The level of financial resources allocated to gender budgeting also varies from country to country, but is generally small.

In 2014, for instance, Korea and Spain both allocated around 6% of their budgets to gender equality, while the Netherlands and Mexico both allocated less than 1%.

In 2016, the Korean government allocated 7.2% of total spending to gender budgeting measures. Measures included the provision of subsidized childcare programs, promoting a culture of gender equality through education, increasing women's welfare and basic pension, and enhancing women's participation in the international field through UN fund contributions, among other measures.

In an effort to address labor shortages, Japan's 2017 budget included an increase in the limit a dependent spouse could earn and still be eligible to be listed as a "dependent" on the primary income earner's tax filing (thereby enabling the primary earner to still receive that tax deduction) to JPY1.5 million from JPY1.03 million. This change was offset by raising taxes on higher-income households.

Sweden opened a gender equality agency this year to ensure effective implementation of gender budgeting. The 2017 budget allocated 3.5% of total expenditure to "gender budgeting and introduction of newly arrived immigrants."

While there is no gender budgeting at the federal level in Germany, some cities including Munich, Cologne and Freiburg have adopted gender budgeting measures. The same is true in Switzerland, where the federal government does not formally implement any gender budgeting. Denmark is also excluded from the OECD's official gender budgeting group, though it maintains a Ministry of Gender Equality that publishes national action plans each year to address gender inequality issues.

Two workers per household would likely support financial stability

The final sovereign transmission channel of higher female labor force participation is the potential boost to household and broader economic and financial resilience, through diversification of income and higher net savings rates.

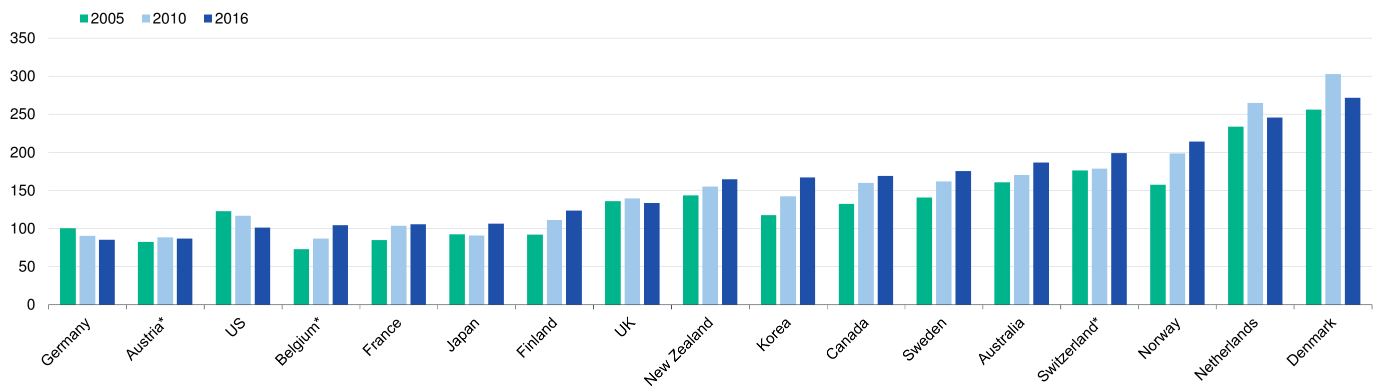
Rising debt could constrain economic growth through weaker consumer demand and amplify shocks

Households in many advanced economies have increased their borrowing over the past decade, in some cases to high levels relative to disposable income (see Exhibit 7).

Exhibit 7

High household debt could constrain domestic demand

Household debt as a % of disposable income



Note: Latest data available for Austria, Belgium and Switzerland are as of 2015

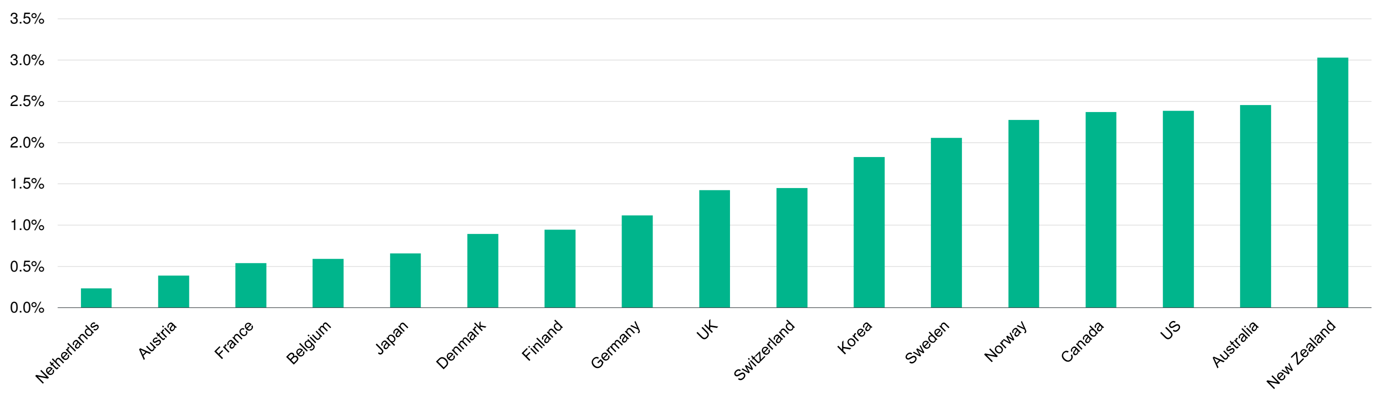
Source: National sources

Real household consumption expenditure has been subdued in recent years (see Exhibit 8), and though this partly reflects very modest recent wage growth, overleveraged households add further downside risks to the medium-term consumption outlook if households eventually lift their savings and prioritise debt reduction.

Exhibit 8

Households' domestic consumption has been particularly low in the Netherlands, where household debt is very high

Real final domestic consumption expenditure growth of households (2011-15 average)



Sources: OECD and Moody's Investors Service

High household debt also increases the risk of financial instability in the event of a significant economic shock, such as sharp housing price falls. A recent study by the IMF found that a one percentage point increase in household debt-to-GDP increases the odds of a financial crisis by approximately one percentage point.

Higher female labor force participation boosts saving rates, lifting the capacity to finance debt and weather shocks to incomes

Two-income households are less likely to face a sudden income loss during economic or sector-specific downturns. Higher female labor force participation can therefore help reduce income volatility and boost the economy's shock absorption capacity. Moreover, with the exception of Finland, countries with the highest female labor force participation rates have generally shown more positive increases in net savings rates, particularly in Denmark and Sweden (see Exhibit 9).

While a wide range of factors influence savings rates beside female participation, this evidence supports the view that economies with higher female participation are likely to better to weather economic downturns and finance debt, thereby reducing economic volatility, potentially a significant credit positive. This ability is likely to reflect the ability and willingness to save more, rather than take on more debt, as incomes rise.

Exhibit 9
Improvements in household savings tend to be higher in dual-income households

Note: France and the UK are excluded from this exhibit due to missing household savings data
Source: OECD

Moody's related research

» Sovereigns - Asia Pacific: 2018 outlook stable as upturn in growth balances high leverage, 10 January 2018

» Sovereigns - Asia Pacific: Investment in human capital can offset demographic drag on growth, 13 August 2017

» Sovereigns - Global: Robotics' Impact on Emerging Market High-Tech Exporters Depends on their Technology Absorption Capacity, 17 May 2017

Authors

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Endnotes

1 Australia, Austria, Belgium, Canada, Denmark, France, Finland, Germany, Japan, Korea, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom, United States.

2 DeAnne Aguirre, Leila Hoteit, Christine Rupp and Karim Sabbagh. "Empowering the Third Billion: Women and the World of Work in 2012. 2012 Booz and Company. "Empowering the Third Billion: Women and the World of Work in 2012."

3 See, also for example: David E Bloom, David Canning, Gunther Fink and Jocelyn E Finlay. "Fertility, female labor force participation, and the demographic dividend." Journal of Economic Growth. May 2009. And: "Female Labour Force Participation and Economic Development in the Southern Mediterranean." Mediterranean Prospects. December 2012. The latter research focussed on the impact of removing region-specific barriers to female labor force participation boosting the numbers of female workers in the overall economy.

4 See: Government of the United Kingdom FAQ on fiscal, economic, and institutional challenges as Brexit looms, September 2017.

5 See: "Women Are Key for Future Growth: Evidence from Canada." IMF. July 2017.

6 See: Achieving stronger growth by promoting a more gender-balanced economy, OECD, 2014.

7 World Employment Social Outlook: *Trends for Women 2017* *World Employment Social Outlook: Trends for Women 2017*

REPORT NUMBER 1093235