Research Office
Legislative Council Secretariat

Information Note

Fiscal sustainability of social welfare spending in selected places

IN08/18-19

1. Introduction

1.1 Social welfare spending has increased significantly across the globe over the past decades, as manifested in a visible rise in the average ratio of "public social spending" to Gross Domestic Product ("GDP") from 11% in 1970 to 20% in 2017 amongst member states of Organisation for Economic Co-operation and Development ("OECD").[1] As this has outpaced the respective growth in other expenditure items, social welfare has become the largest component in overall government spending in OECD, with a share of 33%. While social welfare is intended to protect the public against vulnerabilities in life (e.g. old age, unemployment, sickness and poverty) for building a more equal society, there are concerns over its fiscal sustainability in the longer term.[2] In face of spending pressure on social welfare and other social services, some governments resort to raise the tax revenue, which could have implications for work incentives, business investment and economic growth.[3] Or else, prolonged fiscal deficits could lead to debt accumulation, as reflected in a surge in the ratio of sovereign debts to GDP in OECD from 69% to 110% during 2001-2017.[4] Should the debt-ridden governments be further hit by economic shocks (e.g. deep recession or massive capital outflows), this could lead to sovereign debt crisis as experienced by Greece in recent years.[5]

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1 Public social spending refers to cash benefits, goods and services and tax breaks offered to the elderly, disabled, sick, unemployed, poor and families. On top of social welfare spending, it also covers health benefits (e.g. social insurance). OECD now has 36 member states, including many developed places. See Organisation for Economic Co-operation and Development (2019e).

2 Conceptually, fiscal sustainability refers to the ability of a government to finance its expenditure with its revenue over time, with minimal dependence on borrowing. Yet there is no consensus on its precise definition in operation. See International Monetary Fund (1998).

3 For instance, total government spending and government revenue as a ratio to GDP was 49% and 51% respectively in Sweden. The tax rate in the top bracket of personal income reaches 60%.

4 Apart from perception of increased risks, debt-ridden governments need to spare a substantial part of their annual revenue for interest payments, crowding out resources for spending in other policy areas. For instance, the Greek government paid as much as 7% of its revenue for interest payments in 2016, making it difficult to balance its budget in the coming years. See Organisation for Economic Co-operation and Development (2019b), World Bank (2019b) and McKinsey & Company (2018).

5 Sovereign debt crises refer to those debt crises triggered mainly by government debts. For other financial crises triggered largely by private sector debts (e.g. Asian Financial Crisis in 1998), hey are beyond the scope of this study.

1.2 In Hong Kong, the ratio of public social spending (i.e. sum of public spending on social welfare and health, in line with OECD definition) to GDP has picked up noticeably from 3.6% in 1997-1998 to 5.9% in 2018-2019.[6] Against this backdrop and in the light of increasing service demand in other areas amidst the ageing trend, the Working Group on Long-Term Fiscal Planning appointed by the then Financial Secretary alerted the risks of "longer term affordability and fiscal sustainability" in 2014.[7] It pointed out that "a structural deficit could surface within a decade or two" by around 2030s.

1.3 Hon SHIU Ka-fai is concerned about the relationship between social welfare spending and fiscal sustainability. At his request, the Research Office has conducted a historical analysis of two selected economies experiencing rapid growth in welfare spending right before the fiscal crisis, and how they responded with fiscal reforms afterwards. Sweden and Greece are selected for further study because (a) they had experienced such fiscal crisis in the early 1990s and the 2010s respectively; (b) surging welfare spending is considered as one of the catalysts to such crises; and (c) the fiscal reforms subsequently conducted could have reference value to other places. This paper begins with an overview of global trends of public social spending and fiscal sustainability, along with a list of key factors which could contribute to soveign debt crises. After a quick review on the fiscal policy development in Hong Kong, it then switches to the fiscal crisis in Sweden and Greece, together with a summary of key economic indicators there (**Appendix**).

2. Global trends of public social spending and fiscal sustainability

2.1 **Public social spending** in most of the advanced places has outpaced economic growth during 1960-2017, with its ratio to GDP leaping from 7% to 19% in the United States, 10% to 21% in the United Kingdom and 16% to 25% in Germany (**Figure 1**). This can be attributable to multiple factors. ***First***, there is growing public demand for protection of vulnerable persons facing adversity based on principles of equal opportunities and more even distribution of income.[8] ***Secondly***, on the supply side, governments have increasingly obliged to provide a "minimum level of well-being" to their citizens, giving rise to welfare states especially from the 1950s to

6 An OECD study analyzing pubic social spending in Asia includes expenditure on both social welfare and health. See Organisation for Economic Co-operation and Development (2017a).

7 Financial Services and the Treasury Bureau (2014).

8 Barr (2018).

1970s.[9] ***Thirdly***, although unit rates of welfare entitlements in advanced places have become largely settled by the 1980s, the sharp increase in the number of welfare claimants amidst the ageing trend has magnified welfare expenditure in recent decades. For instance, only 8% of the population in OECD aged 65 and above in 1960, but this has doubled to 17% in 2017.[10] Actually, elderly outlays (mostly pensions) have become the largest component in public social spending in OECD, with a share of 54%.[11]

Figure 1 – Selected fiscal indicators (as a % to GDP) in OECD, 1960-2017

	Public social spending			Total government expenditure			Gross government debts		
	1960	**1980**	**2017**	**1960**	**1980**	**2017**	**1960**	**1980**	**2017**
OECD	8.3	14.4	20.2	-	-	40.4	-	-	**110.4**
- Australia	6.0	10.3	17.8[#]	21.8	33.2	36.1	31.5	21.3	42.6
- Germany	15.6	21.8	25.1	22.9	48.2	43.9	18.4	31.3	71.5
- Greece	8.5	9.9	24.8	20.0	27.7	47.3	13.4	22.6	188.7
- Italy	16.8	17.4	28.1	16.5	40.8	48.7	31.4	56.1	152.6
- Japan	3.5	10.0	21.9[#]	18.4	33.5	39.2	8.0	47.1	223.2
- Spain	-	15.0	23.9	11.0	16.3	41.0	29.4	10.2	114.7
- Sweden	11.3	24.8	26.1	24.4	41.0	49.3	28.6	34.4	49.8
- United Kingdom	10.3	15.6	20.8	33.1	47.6	40.9	117.9	46.2	116.9
- United States	7.2	12.8	18.9	28.3	34.3	38.0	61.7	41.9	106.2

Notes: (-) Data not available.
(#) Figure in 2015 or 2016.
Sources: Organisation for Economic Co-operation and Development and International Monetary Fund.

2.2 As a result of the rapid expansion of public social spending, the fiscal landscape of OECD has demonstrated the following structural changes:

9 For the advanced places, the wave of welfare reforms mostly took place in the two decades from the late 1950s to the 1970s, such as establishment of social insurance schemes and national social service programmes in health and welfare. See International Monetary Fund (1998).

10 World Bank (2019c).

11 Analyzed by type, "old age" took up 54% of public social spending in 2015. This was followed by "sickness and disability" (15%), "family and children" (9%), "survivors" (8%) and "unemployment" (7%). See Organisation for Economic Co-operation and Development (2019e).

(a) **Social welfare being the largest expenditure component:** While other government services (e.g. education, healthcare, defence and public order) also expanded rapidly, they lagged far behind social welfare. As such, public social spending has become the largest component in fiscal expenditure of OECD, with a share of 33% in 2016. This was followed by health (19%), general public services (13%) and education (12%);

(b) **Sustained fiscal deficit:** Total government expenditure in OECD as a ratio to GDP has thus risen to an annual average of 41% during 2001-2017, higher than the respective ratio of 37% in total government revenue. As a result, most member states of OECD recorded fiscal deficits year after year, averaging at 4.2% of their GDP annually so far in this century; and

(c) **Looming government debts:** These governments must resort to borrowing (mainly through issuing public bonds) to finance the deficits, as reflected in a steep rise in the ratio of government debts to GDP in OECD, from 69% in 2001 to 110% in 2017.

While government debts tend to weaken fundamentals of an economy, these debt-ridden states could roll over its debts in normal times, if the risk perception of investors towards these economies remains positive and if the rate of return of such sovereign debts is attractive enough. Taking Japan as an illustration, although its sovereign debts are amongst the highest in advanced places, it can still maintain a large fiscal deficit of 6% of its GDP annually during 2001-2017, with minimal concerns over default risks from the bond buyers.[12]

2.3 However, a debt-ridden government could run the risks of **sovereign debt crisis** when investors cast doubt on its debt servicing capability under the worst scenario.[13] This could happen when the government concerned is facing exceptionally severe economic headwinds or socio-political instability, as shown in the sporadic outbreaks of such debt crises across the globe over the past 20 years

[12] In Japan, the level of government debts has been persistently the highest in the world for a decade, hitting 223% of GDP in 2017. However, there has been no sovereign debt crisis in Japan yet, as investors believed in the loan repayment ability of the Japanese government even though it has suffered prolonged economic setback during 1993-2012. To a considerable extent, this could be attributable to the fact that most (90%) of the government debts in Japan were owed to domestic investors, without the risks of sudden fund withdrawal from foreign investors. See Societe Generale (2013).

[13] Sometimes, financial crisis could be a self-fulfilling prophecy, as the holdback attitude of investors itself could precipitate difficulties in debt rollover. See Cohen (2004).

(**Figure 2**).[14] Major adverse economic factors with potentials to trigger fiscal debt crisis (which could sometimes intertwined) include:[15]

(a) deep and protracted economic recession;

(b) market perception of inadequate foreign exchange earnings amidst prolonged deficits in current account (i.e. external trade in goods and services);

(c) sudden and massive outflow of portfolio capital especially when the debts are mainly held by foreign investors (as seen in the Asian Financial Crisis in 1998);[16]

(d) over-leveraging of private debts especially in the banking sector usually seen at times of speculative bubbles in asset markets;

(e) unsustainable overvaluation of a local currency under fixed exchange rate regime; and

(f) poor management of monetary policy resulting in high inflation, deflation or excessively high interest rate.

Figure 2 – Major sovereign debt crises in the world, 1998-2018

	Year	**Nature of the crisis**
1. Russia	1998	Sovereign debt crisis, banking crisis, currency crisis
2. Argentina	2001-2002	Sovereign debt crisis, banking crisis, currency crisis
3. Italy	2010-2018	Sovereign debt crisis, banking crisis
4. Spain	2010-2014	Sovereign debt crisis, banking crisis, private debt crisis
5. Greece	2009-2018	Sovereign debt crisis, sudden outflow of capital

Sources: Laeven and Valencia (2008) and Claessens and Kose (2013).

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[14] International Monetary Fund (1998).

[15] Manasse et al. (2003) and Claessens and Kose (2013).

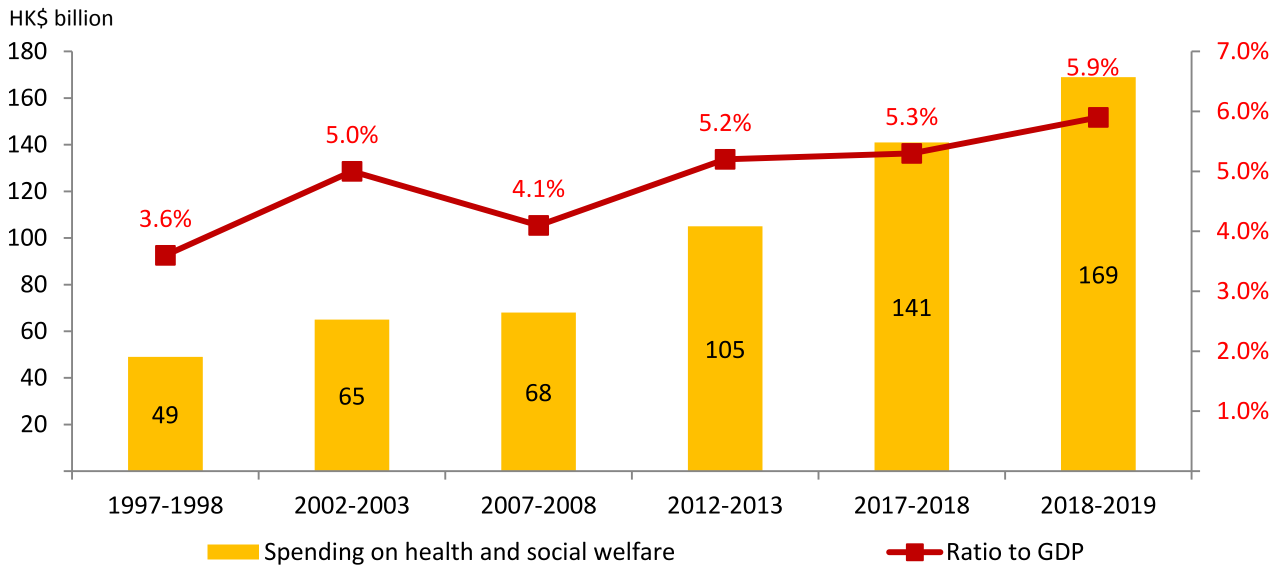
[16] The Asian Financial Crisis in the 1990s is not considered as a sovereign debt crisis, as the default risks in the five affected economies (i.e. South Korea, Thailand, the Philippines, Malaysia and Indonesia) were mainly related to private sector debts. Before the crisis, economic fundamentals of these economies had worsened considerably as reflected in enlarged deficits in current account, overheating property market and unsustainable exchange rate pegged to the US dollar. The sudden outflows of hot money in face of heightened risk perception eventually triggered the crisis. See Mohri (2013).

2.4 For those welfare states which have not encountered such severe debt crisis, some economists are concerned that they still bear the cost in the form of "loss of economic efficiency".[17] It is argued that welfare states could nurture a culture of dependency, weakening the "incentives for seeking employment". Moreover, higher tax burden could dampen investment spending, leading to slower economic growth.[18] Yet some economists hold an alternative view, arguing that welfare states could still be growth-friendly when implemented with sound economic policies (such as privatization, reducing regulatory barriers and trade barriers).[19]

3. Public social spending and fiscal sustainability in Hong Kong

3.1 In line with the OECD definition, **public social spending** in Hong Kong has expanded at a robust pace over the past 21 years, by a total of 243% to HK$169 billion in 2018-2019 (**Figure 3**). Its share in local public spending has gone up visibly from 21% to 29% over the same period, along with a rise in its ratio to GDP from 3.6% to 5.9%. While the local ratio of public social spending to GDP is close to the average figure of 7% seen in Asia, it is far below that of 20% in OECD. OECD pointed out that this was partly due to an absence of a comprehensive social insurance system in Asia.[20]

Figure 3 – Public social spending in Hong Kong, 1997-2018



Source: Census and Statistics Department.

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17 International Monetary Fund (1998).

18 According to an empirical study, increased government size in an economy could slow down GDP growth. See Bergh and Henrekson (2011).

19 In the Scandinavian countries (e.g. Norway, Finland and Sweden), GDP growth remains solid, averaging at 1.7% per annum during 2001-2017. See The Economist (2018) and Lindert (2003).

20 Organisation for Economic Co-operation and Development (2017a).

3.2 On **management of public finance**, the Government is obliged to meet three constitutional requirements stipulated under Article 107 of the Basic Law, namely (a) keeping "the expenditure within the limits of revenues"; (b) striving to "achieve a fiscal balance"; and (c) keeping "the budget commensurate with the growth rate of GDP".[21] In spite of some volatility in the early 2000s, Hong Kong seems to have met these objectives pretty well.[22] For the entire period of 21 years from 1997-1998 to 2018-2019, **government revenue** represents about 19.9% of GDP on average, higher than that of 17.9% for **government expenditure**. This gives rise to annual **fiscal surplus** averaging at some 2% of GDP, with accumulated fiscal reserves reaching HK$1,161 billion or 41% of GDP in 2018-2019, whereas the ratio of **government debt** is just 0.1% of GDP.[23] Against this backdrop, the Heritage Foundation gives a full mark on the fiscal health of Hong Kong in its latest global ranking exercise.[24]

3.3 Yet the Government is still concerned about the **fiscal sustainability** issue from time to time, in the context of rising service demand upon rapid ageing in society. In April 2013, the then Financial Secretary appointed a Working Group on Long-Term Fiscal Planning tasked with a "fiscal health check". In the final report released in April 2014, it projected that "a structural deficit could strike in 2029-30" even under the scenario without service enhancement in social welfare, education and health, mainly due to service cost inflation and ageing effect. By 2041-2042, it projected that all the fiscal reserves would be depleted and Hong Kong would need to incur debts by then.[25] The Working Group thus recommended setting up a "Future Fund" in the 2015-2016 Budget, putting aside a portion of fiscal surplus for investment, aiming to generate higher rate of returns to support the needs of future generations.

3.4 However, the incumbent Chief Executive pointed out in August 2017 that the projection conducted by the Working Group was based on "certain assumptions" and they "could be changed with a change in policy". She holds the view that productive social spending could not only reduce unnecessary government expenditure on the

[21] The Government had also stipulated a guideline in the 2002-2003 Budget that public expenditure should not exceed 20% of GDP, but this was not strictly followed. In the 2019-2020 Budget, the respective ratio is forecast to be higher than 22% of GDP for the next five years till 2023-2024.

[22] When Hong Kong encountered economic hardship during the Asian Financial Crisis, fiscal deficit was seen in 1998-1999 and four years in a row from 2000-2001 to 2003-2004, with a combined deficit of HK$196 billion.

[23] These are bonds issued under the Government Bond Programme (including Silver Bonds), mainly for the development of local debt market.

[24] The Heritage Foundation (2019).

[25] The projection exercise is based on historical trend and a number of policy assumptions on ageing effect. See GovHK (2014, 2015a and 2015b).

one hand, and bring in additional revenue on the other.[26] On this basis, the incumbent Financial Secretary has adopted "strategic fiscal management principles" in using the fiscal surplus "to invest for Hong Kong and relieve the public's burdens" in the 2018-2019 Budget.[27]

4. Fiscal crisis in Sweden in the early 1990s

4.1 Sweden is a wealthy country in Scandinavia, with per capita GDP standing at US$53,400 (HK$416,200) in 2017, the 12th highest in the world. As a small and open economy with a population of just 10 million, Sweden is a Nordic welfare state characterized by **generous welfare benefits** (e.g. parental leave as long as 480 days for childbirths), **even income distribution** (with Gini Coefficient as low as 0.28), **high tax rate** (with a marginal tax rate of 60% for the top bracket of personal income), **large public sector** (with government outlays representing about 50% of GDP), **strong devotion to work** (with 85% of females and 89% of males aged 20-64 participating in the job market), and a **strong consensus culture** under an almost uninterrupted leadership of the Swedish Social Democratic Party for some 60 years during 1932-1991.[28]

4.2 The modern form of the Swedish welfare state takes shape mostly between the 1950s and 1970s. With cross-party support, the political vision of *folkhemmet* ("people's home") was progressively extended to various policy areas for building a fairer society.[29] The welfare entitlements established by the end of 1970s were largely kept intact before the fiscal crisis in the 1990s (**Figure 4**). As a result of these enhancements in social protection, **public social spending** as a ratio to GDP in Sweden more than doubled from 11% in 1960 to 27% in 1990. In parallel with growth in other social services and as revenue could not catch up with the outlays, Sweden suffered from sustained **fiscal deficit** for six consecutive years during 1980-1985, averaging at 4.5% of GDP. The ratio of **government debts** to GDP thus doubled from

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[26] The incumbent Chief Executive elaborated that if increased government spending was used for social investment, it could foster economic growth and bring in more revenue. Taking healthcare as an example, if spending on preventive care could reduce hospitalization, the assumption that we need to double or triple hospital expenditure for elderly caring would become invalid. See GovHK (2017).

[27] GovHK (2018).

[28] Over these 60 years, Social Democrats were voted out from governance only for once during 1976-1982. See Nordic Council of Ministers (2014).

[29] The political idea of folkhemmet is to make the society look like a small family, with contribution from each member and everybody looking after one another. To this end, the duration of unemployment benefits almost quadrupled from 120 days in 1950 to 450 days in 1974, while the universal pension system for old age was established in 1948. See Jonson (2005).

17% in 1970 to 40% in 1990, weakening the fundamentals of the Swedish economy and paving the way for a debt crisis in 1991 when hit by a number of economic shocks.

Figure 4 – Key features of social welfare benefits in Sweden before the 1990s

	Major benefits	Year
1. Pension	• Pension benefits around 60% of average earnings of 30 years • Lower retirement age to 65	1948-1976
2. Unemployment	• 50-60% of lost earnings when unemployed • 450-day benefit period	1950-1974
3. Disability	• 60% of average earnings of 15 years	1960-1976
4. Sickness	• Compulsory earnings-related sickness insurance • 90% of earnings with waiting days abolished in 1967	1955-1974
5. Family	• Parental leave of 480 days for childbirth • Same benefit level as the sickness insurance • 210-day benefit period	1948-1974

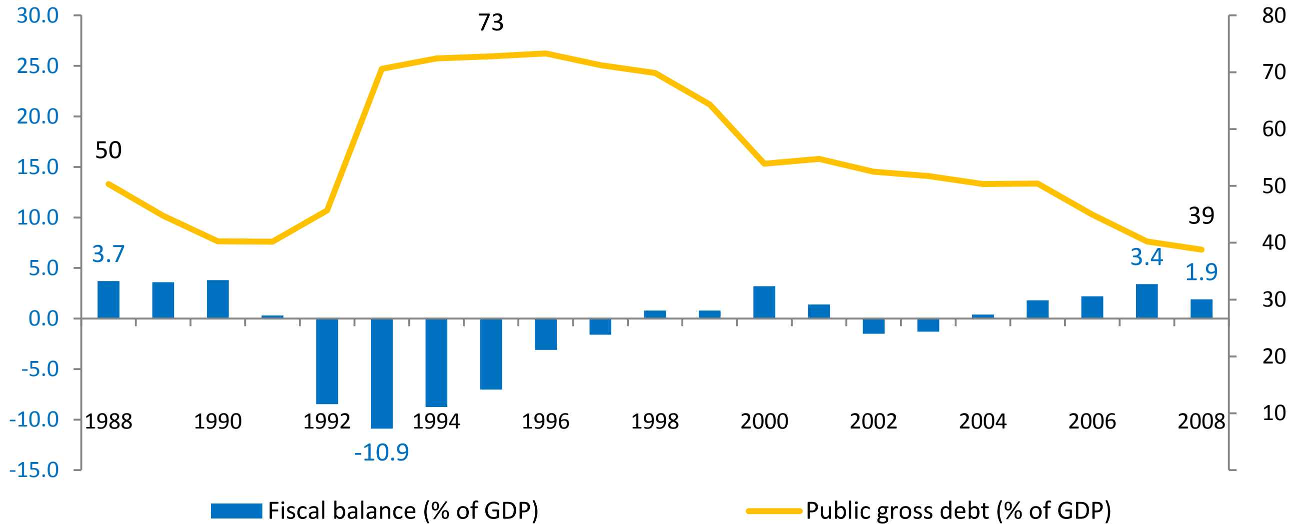
Source: Hort (2014).

4.3 Put it very simply, the Swedish debt crisis was a combination of credit boom and bust, banking crisis, currency crisis and speculative bubbles. ***First***, besides public sector debt, private sector debts in Sweden also registered rapid double-digit annual growth in the late 1980s, after the banking de-regulation in 1985. Credit demand of both households and firms was also buoyed by an ultra-low or even negative interest rate in real terms, after adjustment for high inflation and tax factors. However, as interest rate in real terms reverted to a sharp uptrend afterwards upon a restructuring of the tax system in 1990, it prickled the speculative bubbles in both the property and stock markets, resulting in credit crunch.[30] ***Secondly***, the exchange rate of the Swedish Krona was overvalued amidst the twin deficits in the fiscal balance and current account, resulting in speculative attacks on Krona. As Krona depreciated by a total of 21% during 1992-1993, those private sector debts denominated in foreign currencies would have increased repayment burden in terms of local currency. ***Thirdly***, many Swedish banks were on the verge of collapse, after the collapse of the first financial institution (i.e. Nyckeln) in September 1991. This forced the Swedish government to take over almost one quarter of bad banking assets. Against these

[30] In Sweden, the tax system allowed deductibility of nominal interest payments. However, a tax reform in 1990-1991 reduced the proportion of interest payments subject to tax deductions from 50% to 30%. Coupled with the uptrend in interest rates after the unification of Germany, after-tax interest rate in real terms faced by household shot up from -1% in 1989 to +5% in 1991. See Englund (2015).

headwinds, GDP in Sweden contracted by a total of nearly 5% in real terms during 1990-1993, and the unemployment rate increased more than four-folds from 1.8% to 9.3%.[31] While the size of fiscal deficit enlarged to 11% of GDP in 1993, the ratio of government debt leaped to a high of 73% in 1995 (**Figure 5**).[32]

Figure 5 – Key fiscal indicators of Sweden, 1988-2008



Sources: Organisation for Economic Co-operation and Development and International Monetary Fund.

4.4 The Swedish government then rolled out a decade-long austerity measures and fiscal reforms to restore its fiscal sustainability, on the back of cross-party consensus.[33] Major fiscal reforms included:

(a) **Pension reform in 1994:** The pension reform implemented by phases during 1994-2003 aimed at improving its long-term sustainability, replacing a defined benefit system by a defined contribution system.[34] ***First***, pension benefits are based on life earnings under the new system, instead of an average of the best earnings of 15 years under the old system. ***Secondly***, while the new system discouraged early retirement which could lead to 6% reduction in pension payment, unemployment could not be used as a reason to trigger early retirement since 1995. ***Thirdly***, there is an automatic mechanism to reduce pension at times of

31 Tepe (2005) and Hassler (2015).

32 Holmlund (2003).

33 In March 1993, the "Lindbeck Commission", recommended 113 necessary structural changes to modernize Sweden's economy and political apparatus, laying the foundation for the extensive reform process in the 1990s and 2000s.

34 The proportion of the population aged 65 or more in Sweden is expected to increase to around 23% in 2030. See Anxo and Niklasson (2008).

economic downturns, improving sustainability of the system;[35]

(b) **Tightening welfare spending since the mid-1990s:** Likewise, the Swedish government made earnings-related welfare benefits link closer to contributions, and made means-tested unemployment benefits more conditional on participation in re-employment programmes and vocational training.[36] Moreover, the benefits under sickness insurance and the unemployment insurance were reduced from 90% to 80% of monthly income.

As from 2007, unemployment benefits have been tightened further by lengthening the waiting days and lowering the benefits to 65% of monthly income in some conditions.[37] During 2003-2008, sickness benefits were also tightened in view of rapid rise of claimants since the late-1990s, partly due to the generosity of sickness benefit;[38]

(c) **Comprehensive tax reform since 1991:** Right before the outbreak of the debt crisis in 1991, the Swedish government launched a comprehensive tax reform, such as reducing marginal tax rates on top income band from over 80% to 55%.[39] It aimed at creating more incentives to work and invest in direct taxation, with the lost revenue recouped through raising the rates for value-added tax in indirect taxation and abolition of various tax deductions. In 2006, personal income taxes and corporate taxes were further reduced, along with abolition of wealth tax;

(d) **Statutory "fiscal policy framework" in 1996:** Most importantly and rarely seen in other places, the Swedish government enacted the Budget Act in 1996, requiring all levels of government to follow a rule-based framework in preparing their budgets.[40] These fiscal rules include (i) introducing a fiscal surplus target in 1997 equivalent to 2% of GDP on average over the course of the business cycle, and this target has been lowered to 1% of GDP since 2007 and further to 0.33% as from 2019; and

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35 Fölster and Kreicbergs (2014).

36 Tepe (2005).

37 Under the revised scheme, the level of unemployment benefits is 80% for the first 200 days, and 70% thereafter until Day 300. The compensation is further reduced to 65% if the unemployed continued to claim such benefits. See Bengtsson and Berglund (2012).

38 In the 1990s, the compensation rate of sickness benefit reduced from 90% to 80%, with a waiting period. While the waiting period lengthened from 14 to 21 days in 2003, a compensation ceiling for the sick unemployed was imposed in 2008. See Andren (2003) and Björnberg (2012).

39 Anxo and Niklasson (2008).

40 Such measures were firstly recommended by the Lindbeck Commission in 1993 and were approved in the Parliament with a wide cross-party agreement in 1996.

(ii) public spending ceiling over the economic cycle set by the Swedish parliament 3 years in advance.[41] Most recently, another debt anchor target of 35% of GDP of gross debt has been introduced as from 2019 and the government must explain to the Parliament in case of deviation from the anchor by more than 5% of GDP. The Swedish Fiscal Policy Council was also established in 2007 for monitoring implementation of these fiscal targets;[42] and

(e) **Constitutional amendment to lengthen the term of government to four years:** In 1970s, each term of the government and the Parliament (i.e. Riksdag) was shortened from four years to three years, but this led to myopic political decision-making and budget process. In 1994, the Swedish constitution was amended to roll back each term of Riksdag to four years.[43]

4.5 As a result of these wide-ranging and decade-long fiscal reforms, coupled with steady economic recovery, the Swedish government has restored its fiscal health. As a percentage to GDP, **public social spending** in Sweden has eased back noticeably from 31% to 26% during 1995-2017, and so did the **overall government expenditure** from 65% to 49%. As annual **fiscal balance** reversed from -7.0% to +1.3%, gross government debts came down noticeably from 73% to 50%. To some economists, this fiscal resilience was because the Swedish government recognized that it could not "afford" a big government.[44]

4.6 This apart, a number of structural reforms had been concurrently introduced to revitalize the Swedish economy over the past two decades, such as (a) introducing labour market reforms to minimize the incidence of labour strikes; (b) privatizing state-owned enterprises in major sectors like railway, telecommunications, post and energy sectors throughout the 1990s; and (c) promoting research and development and upgrading skill levels of the workers amidst the development of knowledge-based activities in the Swedish economy.[45] All these reforms seem to have borne fruit, as

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41 The fiscal rules aim at achieving (a) long-term sustainable public finances; (b) adequate margins so that large deficits can be avoided during economic downturns; (c) an even distribution of resources between generations; and (d) reduction of the large debt accumulated over the past few decades. See Palmer (2014) and Ministry of Finance (2017).

42 The Council is a government agency consisting of six members including senior economists and academics in Nordic countries, with a secretariat.

43 Lindbeck (1993).

44 The Economist (2013).

45 McKinsey & Company (2012), The Economist (2013) and Organisation for Economic Co-operation and Development (2019b).

Sweden is now ranked as one of most innovative and competitive economy in the world.[46]

5. Fiscal crisis in Greece by the 2010s

5.1 Greece is a developed country in the Mediterranean, with a population of 10.8 million and per capita GDP of US$18,600 (HK$144,968) in 2017, the 45th highest in the world. The Greek economy is characterized by a **high incidence of self-employment** (taking up as much as 34% of the overall workforce and the highest in OECD), partly due to widespread tax evasion on the other.[47] Also, Greece has a **large shadow economy** (i.e. underground or undeclared earnings or business transactions bypassing taxation), accounting for some 21.5% of its GDP.[48] Both have undermined the fiscal foundation of Greece and eventually contributed to the fiscal crisis in the 2010s.

5.2 After the fall of the military government in 1974, Greece resumed open election and began to develop its social welfare system especially under the Socialist government during 1981-1989 and 1993-2004.[49] Unlike Sweden, development of the Greek welfare system focuses mostly in pension system for the elderly, but not in other areas like unemployment benefits or poverty assistance.[50] While the tripartite pension contribution in Greece was equivalent to 30% of monthly employment income in 2008, the pension benefits were one of the most generous in OECD.[51] This was reflected in (a) pension eligibility lowered to nine-year of work before retirement; (b) allowing early retirement at the age of as young as 45; and (c) retirees claiming monthly pension as high as 107% of their monthly income before retirement in some economic sectors (**Figure 6**).[52]

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46 In 2018, Sweden was ranked the ninth most competitive economy in the world by the World Economic Forum and as the third most innovative economy by the Cornell University. See Schwab (2018) and Dutta (2018).

47 In Greece, self-employment is often resorted to avoid high severance payments, costly insurance contributions and high tax. See Filinis (2018) and Hatfield (2015).

48 Forbes (2017).

49 The establishment of the welfare state in Greece was primarily due to the electoral manifesto initiated by the socialist party, namely PASOK, in the early 1980s for a radical reform in social welfare "in favour of non-privileged Greeks". See Venieris (1994).

50 In 2010, pensions took up as much as some 24% of the average disposable household income for Greek, while other social benefits (e.g. family, sickness, unemployment and social assistance) took up just 3.2%.

51 Before the pension reform in 2010, employees had a monthly contribution rate of 6.67%, while the contribution rate for employers and government was 13.33% and 10% respectively.

52 The number of early retirees in Greece was much higher than other European countries. Some 19% of people aged 50-59 are pensioners in Greece, compared with only 10% in the European Union. See World Bank (2017), Venieris (1994), Petmesidou (1996) and Symeonidou (1996).

Figure 6 – Major developments of the pension system in Greece, 1978-2017

Year	Major developments
Before the crisis	
1978	• 13th and 14th month payment (holiday bonuses) were included, effectively raising pension benefits by 17%
1980-1981	• The level of minimum pension benefit was increased by 50% for participants with contributory history
1982-1985	• Certain sort of pension was extended to all people, including those without contributory history
1984	• Duration of contributory history for pension was reduced to only nine years
1980s	• Retirement age lowered to 45 in some occupations
1985-1990s	• State subsidized those pension funds with ballooning deficits
1992	• Level of pension increased to 107% of pre-retirement earnings in some economic sectors
After the crisis	
2010-2014	• Pension cut by 20-40% under the bailout plans • Retirement age increased to 67 in phases • Pensionable earnings are calculated on the life career average instead of 5-10 years average • Pensions were frozen at 2009 level until 2016, and were frozen again at 2017 level until 2022
2012	• Zero deficit clause was introduced to limit public spending on pensions and curb pension deficits
2014	• Additional special rights of some occupational groups were abolished to achieve pension equality and prohibit early-retirement
2016-2017	• Early retirement was further curtailed and increased and harmonized contribution rates • Pension reduced to 54% of pre-retirement earnings after years of cuts

Sources: Organisation for Economic Co-operation and Development (2018), Venieris (1994) and Tinios (2016).

5.3 Coupled with ageing, the ratio of **public social spending** to GDP more than doubled from 10% to 25% during 1980-2010.[53] The ratio of **overall government spending** to GDP likewise doubled from 28% to 50%, along with service expansion in other policy areas. Together with the severe tax evasion problem on the revenue side, the Greek government suffered from protracted **fiscal deficit** for 36 years in a

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53 The proportion of elderly aged 65 and over in the Greek population has doubled from 11% in 1970 to 19% in 2008, and rose further to 22% in 2017. Public pension spending as a ratio to GDP in Greece doubled from 5.2% in 1980 to 12.5% in 2008.

row during 1980-2015, averaging at 7.7% of GDP per annum.[54] The ratio of **government debts** more than quadrupled from 23% in 1980 to 113% in 2008. The pension system had thus become a "fiscal time bomb" in Greece, weakening its economic fundamentals and paving the way for a debt crisis upon a sharp deterioration of global economic environment in 2008.[55]

5.4 On top of the sovereign debts, the Greek debt crisis in the 2010s was also a result of accumulation of private sector debt upon the adoption of the Euro as the Greek currency in 2001. Not only did the euphoria related to Euro membership cover up the structural weakness of the Greek economy, it also stimulated over-leveraging in the private sector as Greeks could borrow at a very low interest rate.[56] The ratio of private sector debts to GDP thus surged from 57% in 1999 to 130% in 2009.[57] Moreover, Greek suffered a significant deficit in current account (averaging at 9% of GDP) on the one hand, and was heavily dependent on foreign debt (amounting to 129% of GDP in 2009) on the other.[58] When the global financial market was shattered by the collapse of the Lehman Brothers in September 2008, interest rate for Greek loans surged upon increased risk perception of global investors. Worse still, the creditability of the Greek government was severely hit in October 2009, in relation to its persistent under-reporting of actual fiscal deficit and gross debt ratio to the European Commission ("EC"). Together with continued downgrading by the credit rating agencies, the Greek government found it difficult to roll over its debt.

5.5 Eventually, the Greek prime minister had to make a formal request for bailout before any loan default in 2010, with the first batch of bailout loan equivalent to €110 billion (HK$1 trillion) extended by the global institutions led by the International Monetary Fund ("IMF") in May 2010. At this juncture, the Greek economy is still adjusting to the aftermath of the sovereign debt crisis, with a total bailout loan amounting to €289 billion (HK$2.8 trillion) by August 2018.[59] The Greek economy has been severely hit by the debt crisis, with its GDP shrinking by a total of

54 Tax evasion was a severe fiscal problem in Greece, as 47% of the workforce was self-employed in the early 1990s. See George (1999).

55 Organisation for Economic Co-operation and Development (2007).

56 Christos and Athanasios (2017).

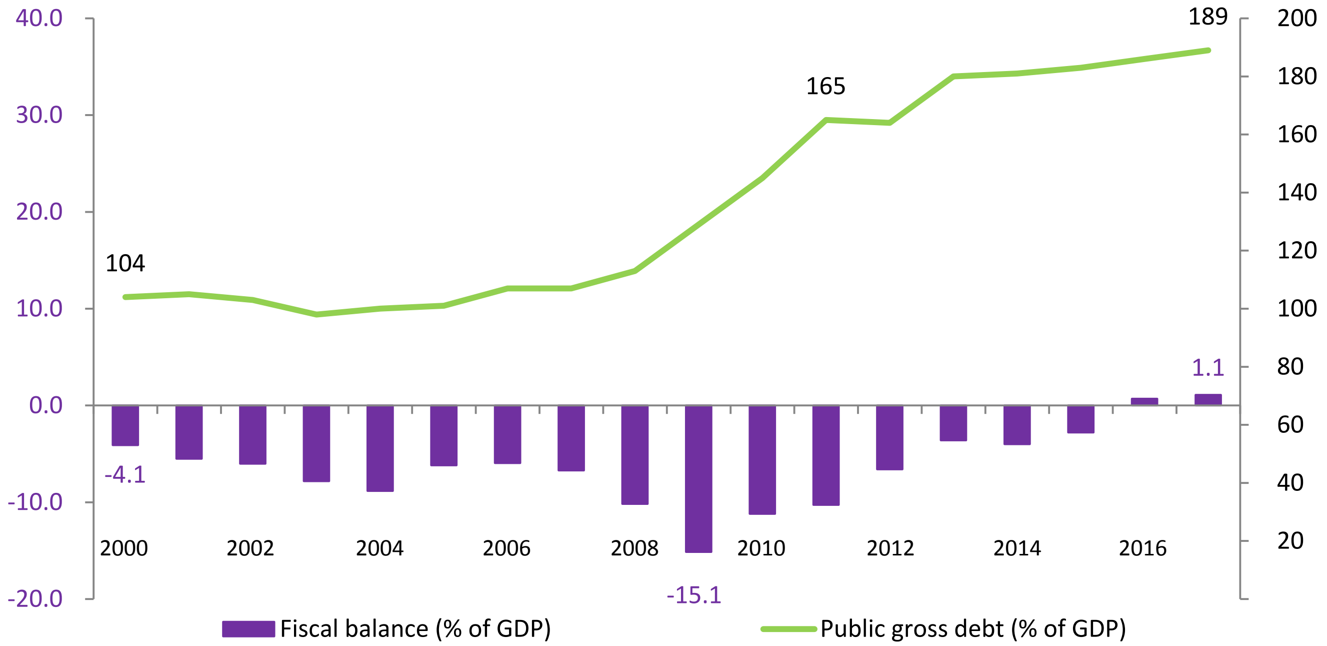
57 Organisation for Economic Co-operation and Development (2019a).

58 Congressional Research Service of the United States (2010).

59 The lending institutions included EC, the European Central Bank and the IMF during 2010-2018. In return for the loan, Greece was committed to sweeping spending cuts, steep tax increases, and an ambitious programme of structural reforms. Altogether three bailout loans were made in 2010, 2012 and 2015. The first bailout loan was ineffective to calm the financial market causing fears of contagion to other debt-ridden Eurozone countries such as Portugal, Ireland and Spain. The European summit decided to accept a haircut – a negotiated reduction in the nominal value of Greek government bonds, by writing off 50% of Greek debt held by commercial banks and other private creditors amounting to €200 billion (HK$1.9K trillion) to help Greece reduce its public debt to 120% of GDP by 2020. See BBC (2018) and Matsaganis (2012).

26% in nominal terms during 2008-2017, along with an almost tripling of its unemployment rate from 7.8% to 21.5%. Moreover, the ratio of fiscal debt to GDP rose further to a peak of 189% in 2017 (**Figure 7**).

Figure 7 – Key fiscal indicators of Greece, 2000-2017



Sources: Organisation for Economic Co-operation and Development and International Monetary Fund.

5.6 During 2011-2018, the Greek government had launched a total of 14 austerity packages to tide over the economic difficulties and as a pre-requisite for bailout loans. These key measures are summarized follows:

(a) **Pension reform:** Given that pension takes up as much as 70% of welfare spending in Greece, pension retrenchment is the focus of the welfare reform. Major measures include (i) raising the statutory retirement age from 61 to 67 in 2012; (ii) linking pension benefits more closely to lifetime contributions; (iii) abolishing 13th and 14th monthly payments (holiday bonuses) to pensioners; (iv) imposing a new tax on pensions at increasing levy rates with respect to the amount of pension;[60] and (v) freezing most pensions at their 2009 level until 2016 and at 2017 level until 2022, with further cuts on benefit for early-retirees. As a result of these retrenchments, the pension replacement rate (i.e. ratio to pre-retirement earnings) in Greece almost halved from 96% in 2009 to 54% in 2017, close to average figure for OECD.[61]

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60 Matsaganis (2012).
61 Organisation for Economic Co-operation and Development (2009) and (2017b).

Looking ahead, the Greek government has planned to revise pensionable age with respect to longevity on a triennial basis as from 2021 onwards. Moreover, a rule for adjustment in pension allowances with respect to economic growth and inflation will be applied from 2022;[62]

(b) **Other welfare reform:** Most social benefits were cut and more means-tests were introduced to tighten eligibility. Moreover, scattered social benefits were integrated and targeted, like consolidating family benefits into fewer benefit categories with tightened eligibility. However, in face of rising number of households living in poverty amidst deep recessions, the Greek government extended minimum social safety net to citizens in extreme poverty such as Social Solidarity Income scheme in 2017;[63]

(c) **Cutting government spending:** As the civil service has expanded considerably since the 1980s, the Greek government downsized the establishment of civil servants by a total of 25% during 2011-2017.[64] The practice of paying two bonus months of salaries to civil servants was abolished, along with a 20% cut in special allowances. Moreover, monthly salaries in the public sector were frozen at 2009 level until 2016. These measures helped reduce average pay levels of civil servants in Greece by 30%. In addition, public expenditures in military, health, education and social services were also sharply cut in phases;

(d) **Cracking down tax evasion:** On the revenue side**,** the Greek government was obliged to combat tax evasion (amounting to 6-9% of annual GDP) as required from the bailout loans since 2012. Key measures included intensifying tax audits, greater use of electronic payments and establishment of the independent agency (i.e. the Independent Authority for Public Revenues) to oversee the issue. A voluntary scheme was also introduced in 2016 leading to the disclosure of hitherto unreported income of €9.5 billion (HK$87.9 billion);

(e) **Tax reform:** Personal income tax was restructured to become more progressive and simple, along with a rise in tax rate for small companies and indirect tax. To widen the tax base, while several social benefits (e.g. pension) has become taxable, new taxes were levied on new consumption items (e.g. coffee, electronic cigarettes and television subscriptions);

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[62] Organisation for Economic Co-operation and Development (2018).
[63] Organisation for Economic Co-operation and Development (2013) and European Commission (2018).
[64] Hemerijck (2012) and European Stability Mechanism (2018).

(f) **Rule-based fiscal policy reform:** In order to achieve the 2011 fiscal targets set in the first bailout plan, the Medium-Term Fiscal Strategy ("MTFS") was adopted by the Greek Parliament since mid-2011. MTFS is meant to restore fiscal discipline, setting forth a 4-year fiscal planning period and projections with targets on fiscal balance and government expenditure ceilings;[65] and

(g) **Setting up dedicated institutions to oversee fiscal discipline:** In 2010, a statutory Parliamentary Budget Office was established as an independent fiscal institution within the Parliament for monitoring budget implementation laid down in MTFS. Moreover, upon IMF and EC recommendation, an independent Hellenic Fiscal Council became operational in 2016 primarily for monitoring the compliance with the fiscal rules of MTFS and analyzing the macroeconomic and fiscal developments affecting growth, employment and social budget.[66]

5.7 Besides, the Greek government also introduced structural reforms in the private sector to enhance its economic competitiveness. These structural reforms include (a) labour market reforms aiming to increase its flexibility and removing entry barriers in certain professions; and (b) privatization of assets or shareholdings in state enterprises, banks, public infrastructure and real estate, as the proceeds could help reduce the government debt ratio. These reforms seem to have assisted the Greek economy to bottom out from the doldrums, although its public debt ratio still stood at a high level of 189% of GDP in 2017. ***First***, Greek economy managed to rebound to 1.4% growth in 2017, the fastest pace within a decade and reversing the earlier drop. ***Secondly***, the fiscal balance bounced back to a tiny surplus for the second year in a row in 2017, reversing the deficit situation for more than 30 years beforehand. ***Thirdly***, Greece managed to repay part of the bailout loan amounting to €41.6 billion (HK$385 billion), and exited from the third bailout programme in August 2018, meaning a nominal end of the 8-year crisis in spite of the ongoing fiscal surveillance from the Eurozone governments.[67]

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65 Ministry of Finance (2015).

66 The board members are high-level academics and professionals with special arrangements to buffer them from political interference. See Christos and Athanasios (2017).

67 After this repayment, Greece still owes the Eurozone countries over €228 billion (HK$2.1 trillion). The European Commission set up a system of post-programme surveillance, overseeing whether Greece can honour the debt relief agreement made in June 2018. See Financial Times (2018).

6. Observations

6.1 Most of the governments of advanced places are facing pressure of increased spending on social welfare and other social services, causing policy concerns over fiscal sustainability. Those welfare states with protracted fiscal deficits and huge debts might lapse to debt crisis if hit by several economic shocks under the worst scenario. There are also concerns over "loss of economic efficiency" in welfare states, as higher tax rates could weaken incentives for work or investment.

6.2 Sweden and Greece have both encountered fiscal crisis over the past two decades. Although many adverse economic factors were in play, weakened fiscal landscape amidst increased public social spending was widely regarded as one of the catalysts. Both governments responded to these fiscal crises with welfare reforms and retrenchment, resulting in visible improvement in fiscal position. While Sweden has already emerged from the doldrums to become one of most competitive economies in world on the back of its structural reforms, the Greek economy is still in the adjustment process of bottoming out from the adversity.

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Key economic indicators of Sweden and Greece (as a percentage of GDP or %)*, 1985-2017

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Sweden																
(1) GDP growth in real terms*	2.2	2.7	3.4	2.6	2.7	0.8	-1.1	-1.2	-2.1	4.1	4.0	1.5	2.9	4.2	4.5	4.7
(2) Unemployment rate*	3.1	2.8	2.3	1.9	1.6	1.8	3.2	5.7	9.3	9.6	9.0	9.9	10.0	8.3	7.1	5.8
(3) 10-year interest rate*	-	-	11.7	11.4	11.2	13.2	10.7	10.0	8.5	9.5	10.2	8.0	6.6	5.0	5.0	5.4
(4) Current account balance	-1.0	0.6	0.2	-0.2	-1.5	-2.4	-1.7	-2.6	-1.2	1.0	3.2	3.3	3.9	3.6	3.9	4.0
(5) Private sector debt	-	-	-	-	-	-	-	-	-	-	180.7	181.7	194.0	201.3	207.7	218.9
(6) Public social spending	27.0	27.1	27.3	27.8	27.2	27.2	29.1	32.7	34.2	32.9	30.6	30.1	28.9	28.5	28.0	26.8
(7) Total government expenditure	47.6	42.1	40.9	37.9	35.8	38.0	41.0	45.9	71.7	69.6	64.9	62.9	60.7	58.8	58.1	55.1
(8) Fiscal balance	-3.3	0.0	3.7	3.7	3.6	3.8	0.3	-8.5	-10.9	-8.8	-7.0	-3.1	-1.6	0.8	0.8	3.2
(9) Gross government debt	61.2	59.5	56.0	50.3	44.8	40.3	40.2	45.7	70.6	72.4	72.8	73.3	71.2	69.9	64.3	53.9
Greece																
(1) GDP growth in real terms*	2.5	0.5	-2.3	4.3	3.8	0.0	3.1	0.7	-1.6	2.0	2.1	2.9	4.5	3.9	3.1	3.9
(2) Unemployment rate*	7.8	7.4	7.4	7.7	7.5	7.0	7.7	7.8	9.0	8.9	9.1	9.7	9.6	10.8	11.7	11.4
(3) 10-year interest rate*	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	6.3	6.1
(4) Current account balance	-6.8	-3.0	-1.9	-1.3	-3.2	-3.6	-1.5	-1.8	-0.7	-0.1	-2.3	-3.5	-3.7	-2.6	-3.6	-5.9
(5) Private sector debt	-	-	-	-	-	-	-	-	-	-	49.4	50.7	51.3	53.9	57.5	66.3
(6) Public social spending	15.4	15.2	15.2	13.9	14.8	15.7	15.2	15.4	16.2	16.3	16.6	17.0	16.9	17.5	18.0	17.8
(7) Total government expenditure	38.6	38.1	38.4	39.6	40.9	45.2	42.1	44.5	46.8	45.0	46.2	44.5	45.3	44.7	44.8	47.1
(8) Fiscal balance	-9.4	-8.5	-8.0	-9.5	-11.7	-13.1	-9.5	-10.5	-11.3	-8.4	-9.7	-8.2	-6.1	-6.3	-5.8	-4.1
(9) Gross government debt	46.7	47.2	52.5	57.2	60.0	71.7	74.0	79.1	99.2	97.2	97.9	100.3	97.5	95.4	94.9	104.4

Notes: (*) Except figures on GDP growth, unemployment rate and 10-year interest rate, all figures represent the percentage of respective indicators to the size of GDP.
(-) Data not available.

Sources: Indicators (1)-(3) and (5)-(6): Organisation for Economic Co-operation and Development.
Indicators (4) and (8): International Monetary Fund.
Indicators (7) and (9): International Monetary Fund for figures during 1985-2011; Organisation for Economic Co-operation and Development for figures during 2012-2017.

Key economic indicators of Sweden and Greece (as a percentage of GDP or %)*, 1985-2017

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sweden																	
(1) GDP growth in real terms*	1.6	2.1	2.4	4.3	2.8	4.7	3.4	-0.6	-5.2	6.0	2.7	-0.3	1.2	2.6	4.5	2.7	2.1
(2) Unemployment rate*	5.0	5.2	5.8	6.5	7.7	7.0	6.1	6.2	8.3	8.6	7.8	8.0	8.0	7.9	7.4	6.9	6.7
(3) 10-year interest rate*	5.1	5.3	4.6	4.4	3.4	3.7	4.2	3.9	3.3	2.9	2.6	1.6	2.1	1.7	0.7	0.5	0.7
(4) Current account balance	4.7	4.5	5.9	6.0	6.0	8.2	8.2	7.8	6.0	6.0	5.6	5.6	5.2	4.5	4.5	4.3	3.3
(5) Private sector debt	230.1	220.8	205.5	201.5	213.4	216.6	233.4	258.9	275.2	262.4	266.4	268.5	271.4	272.5	271.5	269.5	273.4
(6) Public social spending	26.8	27.5	28.2	27.7	27.3	26.6	25.5	25.6	27.6	26.3	25.6	26.5	27.2	26.8	26.3	26.4	26.1
(7) Total government expenditure	54.5	55.6	55.7	54.2	53.9	52.7	51.0	51.7	55.0	52.9	48.9	51.3	52.0	51.1	49.6	49.7	49.3
(8) Fiscal balance	1.4	-1.5	-1.3	0.4	1.8	2.2	3.4	1.9	-0.7	0.0	-0.2	-1.0	-1.4	-1.6	0.2	1.2	1.3
(9) Gross government debt	54.7	52.5	51.7	50.3	50.4	45.0	40.2	38.8	42.7	39.7	37.9	46.7	49.0	55.2	53.5	52.3	49.8
Greece																	
(1) GDP growth in real terms*	4.1	3.9	5.8	5.1	0.6	5.7	3.3	-0.3	-4.3	-5.5	-9.1	-7.3	-3.2	0.7	-0.4	-0.2	1.5
(2) Unemployment rate*	10.8	10.4	9.8	10.6	10.0	9.0	8.4	7.8	9.6	12.7	17.9	24.4	27.5	26.5	24.9	23.5	21.5
(3) 10-year interest rate*	5.3	5.1	4.3	4.3	3.6	4.1	4.5	4.8	5.2	9.1	15.8	22.5	10.1	6.9	9.7	8.4	6.0
(4) Current account balance	-5.4	-6.8	-8.4	-7.7	-8.9	-11.5	-15.2	-15.1	-12.3	-11.4	-10.0	-3.8	-2.0	-1.6	-0.2	-1.1	-0.8
(5) Private sector debt	74.9	79.4	82.2	87.2	98.9	104.8	114.7	126.3	130.1	141.2	144.4	147.3	145.8	143.1	140.1	137.4	129.4
(6) Public social spending	18.6	18.4	18.2	18.4	19.9	20.0	20.4	21.3	24.0	24.9	26.0	26.9	25.1	25.2	25.4	25.7	24.8
(7) Total government expenditure	45.7	45.5	45.1	45.9	45.0	45.2	47.6	50.6	53.8	50.2	50.0	55.7	62.3	50.2	53.5	48.9	47.3
(8) Fiscal balance	-5.5	-6.0	-7.8	-8.8	-6.2	-5.9	-6.7	-10.2	-15.1	-11.2	-10.3	-6.6	-3.6	-4.0	-2.8	0.7	1.1
(9) Gross government debt	104.7	102.6	98.3	99.8	101.2	107.3	107.4	113.0	129.3	144.9	165.4	164.1	179.7	180.8	182.9	185.8	188.7

Notes: (*) Except figures on GDP growth, unemployment rate and 10-year interest rate, all figures represent the percentage of respective indicators to the size of GDP.
(-) Data not available.

Sources: Indicators (1)-(3) and (5)-(6): Organisation for Economic Co-operation and Development.
Indicators (4) and (8): International Monetary Fund.
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