ECONOMY OF TOMORROW

The Swedish Economy

Structural Fragility beneath Strong Macroeconomic Performance

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- The Swedish economy has recovered strongly since 2009. Its macroeconomic performance and fiscal policy may serve as a model for the deficit countries in Europe.

- But this "Swedish Wunder" is built on dangerous structural fragilities. The Swedish economy is increasingly imbalanced and prone to external shocks.

- There is an urgent need for an economic alternative. Rebalancing its growth model on the basis of socio-ecological inclusion and investment is crucial for the country's future.

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Beneath its strong macroeconomic performance Sweden has undergone fundamental structural changes, in terms of both equity and efficiency. Today, the Swedish model is still cherished by many, but how much can any model change before it becomes impossible to continue to describe it as such? To be sure, economies and societies must change in order to adjust to new political, technological and social circumstances. But what happens when, what everyone is praising, is now only a mirage?

The current Swedish model is built on frail foundations. Ongoing reforms have hollowed out the model and it is unclear which path Sweden is going to take and what the reformed model will look like. The current debates hint towards "muddling through" and maintaining the shaky status quo, which may eventually lead to a new crisis. Sweden is not lacking future challenges. The years to come will be crucial with regard to where the country will end up further down the line.

In the following sections we want to combine an economic analysis with one of the political debate in Sweden and also draw some parallels with Germany. To that end we start out with a look at the economic figures in order to recapitulate the changes in Sweden's economic constellation over the past 20 years. To illustrate the structural changes, we shall analyse the current growth pattern, the shift in competitiveness, the increasing export focus, the trend of deindustrialisation, the corresponding fiscal policy of debt control as well as the parallel increase in private debt. A crucial featureof the new systemic imbalance of Sweden's economy is the development of wages in relation to productivity and the increase of structural unemployment over time.

After this more technical economic account of Sweden's changing economic constellation, we focus on the currentpolitical manouvering regarding economic policy, which is taking place on very shaky ground and in a context of external uncertainties.

In the second section we narrow the focus to increasing inequalities, which is one of the most pronounced and crucial trends in Sweden - and still all too often dismissed by many observers. The widening income gap goes hand in hand with a number of other systemic cracks in the "Swedish model", which long served as a strong "automatic stabilizer" of the Swedish economy.

In the third section, we take a look at the risks associated with an ever increasing asymmetric integration into the world market, which became most apparent in the wake of the last crisis.

In the fourth section, we focus on the Swedish debate on "green growth" and related ecological challenges. Sweden runs the risk of losing out on much of its ecological growth potential due to an overly narrow focus on cost competitiveness.

Our aim is to analyse the growing imbalance of the Swedish economy and to put the Swedish economic performance into perspective,showing the potential for a more progressive and comprehensive political project.

1. Changing the Economic Constellations

Between 1995 and 2007 the Swedish economy grew by an average of 3.3 per cent per year. The first years of this period should be considered a recovery after the deep crisis in the early 1990s. In this respect, the devalued Swedish krona helped manufacturing firms to gain market share in the global economy. Gradually, the ICT (information and communication technology) boom became more and more evident. Old companies, such as Ericsson, encountered strong internal and global demand at the same time as quality improvements of their products were increasing rapidly.This was combined with fast growth among dot.com businesses (although they were overvalued on the stock market). The economy seemed to be very much “new” in Sweden around the turn of the millennium.

After the ICT-driven stock market bubble had burst, economic growth was weak in 2001. However, since the underlying global demand for Swedish manufacturing products was still high, the economy recovered rapidly and achieved record growth rates in 2004-2007. Since this global demand was mainly met by increased labour productivity, employment did not increase as much as the GDP figures might have led one to expect. As a consequence, a debate on jobless growth emerged. Gradually, and with a longer lag than previously seen, employment started to improve and the unemployment rate to fall. Then came the financial crisis and the economy saw a negative growth rate of 0.6 per cent in 2008 and 5.2 per cent in 2009. However, in mid-2011 GDP was back to its pre-crisis level.

Since the mid-1990s public consumption has increased by 0.7 per cent per year. Household consumption has increased by 2.8 per cent a year, on average, during the same period. In both cases this is slower than GDP growth, which has led to a shrinking share of nominal aggregate demand. On the other hand, investments grew fairly rapidly during the period 1995-2007 and the share of GDP increased somewhat. However, public investment has gone down, in both infrastructure and dwellings. Also, we can see a shrinking investment to production ratio within manufacturing. This has stimulated a debate centred around increased competitive pressure from low wage countries and a stronger need for intangibles - company outlays that mainly count as costs, not as investments.

The most important structural change in aggregate demand since the mid-1990s, however, is strong growth in both imports and exports. In this respect, Sweden, as a small and open economy, continues to strengthen its interdependencies with the outside world. Imports and exports grew by 6.4 and 7.4 per cent per year, respectively, between 1995 and 2007. The export share of GDP is now around 50 per cent, and the current account surplus has increased from around 4 to around 8 per cent. The trade surplus in manufactured goods has decreased somewhat, but is still around 5 per cent of GDP. Since the manufacturing sector is the main driver of export growth, we can assume that the growth in value added in this part of the economy has been particularly strong. Average production growth within manufacturing was, on average, almost 7 per cent per year between 1995 and 2007. This is compared to the total business sector, with 4.3 per cent, and the service sector, with 3.8 per cent. Despite continued deindustrialization in terms of relative and absolute employment, manufacturing's contribution to aggregate growth and labour productivity since the mid-1990s has not been bigger since the 1960s. Business-related services have, partly as a consequence of the strong manufacturing performance, grown considerably faster than the service sector average.

The crisis at the beginning of the 1990s made the government debt to GDP ratio increase rapidly. This led to the implementation of two new fiscal rules. First, every year the parliament decides on total government outlays for the coming three years (with a margin for unexpected events). After that, the total stock of outlays can increase only if the same amount of costs is reduced in other parts of the state budget. Second, over the business cycle the government budget must show a surplus of 1 per cent of GDP. At the local government level the authorities are not allowed to run deficits at all. At the governmental level the debt to GDP ratio reached 70-75 per cent in the mid and late 1990s. After that we can see a rapid decrease, during the past couple of years also due to the sale of state-owned companies (the share is now around 40 per cent). Looking at the net difference between government total assets and total debt, net wealth is around 25 per cent of GDP. The household savings rate is also high and during the past couple of years, due to the financial crisis, it has reached a new peak - according to some measures, even higher than in the early 1990s. Connected to that is the fact that household debt has increased rapidly during the past 15-20 years. In 1995, the average household had debts of around 90 per cent of annual disposable income. In 2010, it was 170 per cent of GDP. This has mainly to do with sharp increases in real estate prices in Stockholm and a number of other big cities. The government has, accordingly, imposed some measures to reduce the growth of the mortgage market, but the discussion continues on bank regulation and how this potential risky sector should be reformed in order to be sustainable in the long run. However, in Sweden it is not, in general, a question of a subprime bubble. It is more a matter of rather young, well-educated and well-paid households seeking opportunities in expansionary regions.

The wage share has remained unchanged since the mid-1990s, although it fluctuates markedly from year to year. Swedish businesses are making healthy profits and one reason for that is the wage bargaining system. Aggregate wage increases in the economy are negotiated by the social partners, although there has been a major shift of power in favour of the employers' organisations. The stepping stone for the bargaining process is that labour productivity growth and price increases in the business sector (implicit price deflators) define the level of wage increases that the economy, in the long run, can handle without threatening business profits and global competitiveness. Due to manufacturing-driven strong labour productivity development since the mid-1990s - productivity in the business sector averaged 3.3 per cent per year between 1995 and 2007 - real wages have increased by almost 50 per cent for the average wage earner, while business profits have remained stable.

One other dimension that must be taken into consideration here is that during this period the central bank, on average, held the interest rate too high and thus pushed down the inflation rate a little below the consumer price target of 2 per cent a year. This has led to lower economic activity and higher unemployment (as well as “too strong” real wage growth) than would have been the case if the inflation target had been achieved.

During the 1980s, the unemployment rate averaged around 3 per cent (excluding labour market programmes). During the crisis at the beginning of the 1990s it reached 11-12 per cent, and since then Sweden has not been able to push unemployment back below 6 per cent. Today, it is around 8 per cent, although the forecasts during the financial crisis in 2008-2009 were much gloomier. However, this poor record was the stepping stone for the winning strategy implemented by the rightwing opposition in the 2006 election campaign. After coming to power in 2006 the conservative party alliance has implemented many reforms aimed at structurally improving the functioning of the labour market.

1.1 Maneuvering on Shaky Ground

As a small open economy Sweden is very much dependent on global market developments. At present, the global economy is shaky, to say the least. Sweden is dependent on a sound financial system and a global macroeconomic environment that is stable and conducive to trade and foreign direct investments. A total of 72 per cent of Swedish exports go to Europe and 57 per cent to EU countries. The five biggest export countries are (1) Norway; (2) Germany; (3) United Kingdom; (4) United States; and (5) Denmark. China, with 3 per cent of total export volume, is the ninth biggest export country.

When it comes to defining the most important internal challenges, positions are divided between economists, interest groups, intellectuals and political parties. One question that should not be excluded is how the government can contribute to the construction of a financial and banking system that supports the real economy, instead of creating instability by excessive risk taking. This can be done in different ways, but the Swedish government seems eager to go further than the Basel III proposals. This policy stance is encouraged by the fact that the biggest banks in Sweden are making unhealthy profits while remaining reluctant to lower their interest rates even after the central bank tried to improve the business climate by reducing the Repo interest rate. Within the framework of deeper fiscal policy cooperation in the EU the Commission recently stated that Sweden lacks four criteria when it comes to potential future macroeconomic risks. The most important of these are too much private debt and too rapid price increases on the real estate market.

However, the main policy challenge is to increase employment. The employment rate must get closer to the late 1980s level and structural unemployment must come down. At around 25 per cent, youth unemployment has reached a record high. If a higher employment level can be achieved, the demography-based challenge of future welfare financing will be reduced considerably. There is a clear consensus between the most important opposition party, the Social Democrats, and the four parties in the government coalition that the employment rate must increase. The fundamental problem is, not surprisingly, that neither the political parties nor the social partners agree on the reforms necessary to achieve the goal.

The governments since the late 1990s have believedvery strongly in traditional supply-side reforms, not too different from Germany's Hartz IV reforms, with a strong focus on economic incentives, lower taxes and lower replacement ratios. The aim is to force people to seek work more intensively. Of course, another aim is to lower reservation wages and wage increases. Against that stands a more traditional social democratic view that a well-designed institutional set up, with strong unions, wage coordination, a strong emphasis on education and active labour market programmes, can deliver the same employment rate without the negative social outcomes which result from the rightwing strategy. With a lower union density, more precarious employment and increased use of temporary work agencies, the scene is set for a fast growing low wage service sector. This is also supported by government tax subsidies to traditional household services and directly to the restaurant and catering sector. In more than a few instances, Sweden is following the direction taken in Germany during the past couple of years. However, a minimum wage decided by the government is still not considered a feasible solution.

1.2 Strong Supply-Side "Narrative"

The rightwing government has managed to establish a strong "narrative" with the electorate on how full employment can be achieved. Its deliberate strategy of "co-opting" traditional social democratic terms and slogans has made the average Swede less scared of rightwing politics. In the 2010 election, only 16 per cent of the employed in the region of Stockholm voted for the Social Democrats (a party that believes it can attract 40 per cent of the electorate). The main reasons that persuaded people who had previously voted for the Social Democrats to vote for Moderaterna, the largest and most important of the four parties in the coalition, were employment policy and economic policy in general.

This has put the political opposition and the blue-collar unions on the defensive; they know that underneath the polished surface and current policies fundamental changes are going on in the Swedish economy and society, but public support for an alternative vision of the future is not well established. The election in 2014 will be decisive with regard to how the “Swedish model” will be defined and reformed during the coming decades.

At the same time, it will become more obvious as time passes that the supply-side policies being implemented are not adequate for solving the problems of the labour market. Youth unemployment will still be high and employment rates will be much lower than during the peak years in the late 1980s. This recently spurred the government to initiate discussions with the social partners on how together they can improve the functioning of the labour market. Perhaps the most important aim is to get the trade unions and the employers' organisations to reform the rules on hiring and firing by themselves. One not unlikely general outcome of this could be a wider divide between the blue-collar unions (very closely related to the Social Democratic Party) and the white-collar and academic unions, with no connection to any political party. The question is how the Social Democratic Party will respond to this clear political strategy on the part of the government.

2. Inequalities Accelerate Fragilities

Denmark and Sweden are traditionally ranked - in terms of annual Gini coefficients - as the most egalitarian societies in the developed world. In Sweden, income differences decreased quite dramatically from the 1930s to the late 1940s. This continued, albeit at a slower pace, through the 1950s and the first half of the 1960s. After that, ambitions intensified once again and the tempo was increased towards reduced income differences. At the beginning of the 1980s the Swedish Gini coefficient was at its lowest level ever (0.20). Since then, however, we have seen a fairly dramatic increase, and during the past decade this process has accelerated further.

2.1 Widening the Income Gap

Over the past three decades, income differences have increased in both the upper and the lower part of the income distribution. For example, the share of total incomes of the most well-off 5 per cent has increased from 12 to 17-18 per cent since the beginning of the 1990s. Since 1980, the biggest losers have been the lowest percentiles, in relation to both the median and the 90thpercentile. According to a recent OECD study, since the 1980s, Sweden has been the country with the fastest growing income differences among OECD countries. The ordering between Anglo-Saxon countries, Continental Europe and Nordic countries remains the same, but Sweden has moved closer to some of the continental countries (for example, the Netherlands).

Since 1980, relative poverty has also increased. The share with incomes below 50 per cent of the median has more than doubled, from around 5 to above 12 per cent. Child poverty is also up, from around 2 per cent in 1980 to 7-8 per cent in 2010. Among lone parents, the poverty rate is now 16-17 per cent. Decomposing the change in the Gini coefficient among different types of incomes, it becomes clear that capital income is the main driver of the increased income differences. The main reason behind this are capital incomes. Second, taxes are less re-distributional today than in the early 1990s. Marginal taxes on labour and the real estate tax have been pushed down, while the wealth tax and the inheritance tax have been scrapped.

There is of course a major difference between one-off, annual measures of income differences and development over the life-cycle (life incomes). However, the ranking among countries remains the same with this dynamic approach. In Sweden, it has become clear that the increased income differences are mainly the result of bigger differences in life-time incomes (and not a consequence of more pronounced annual changes in incomes). However, the variability in annual incomes is more prevalent at the lower end of the income distribution, adding extra insecurity on top of low incomes as such.

Wage dispersion has also increased in Sweden in recent decades. When measured as the ratio between the 90thand the 10thpercentiles, it has increased from 1.75 to a little over 2.0 since the beginning of the 1990s. This trend is widespread between the sexes and between different sectors of the economy. In Sweden, minimum wages are determined by negotiations between the social partners and differ between different collective agreements. There is no such thing as a Swedish minimum wage - there are plenty of them, and in some parts of the economy they do not even exist in the relevant collective agreement.

As already mentioned, the wage share in Sweden has been fairly stable since the mid-1990s. One major reason for the stable wage share during the past 15 years is the, in many ways, well-functioning wage bargaining system. When the social partners analyse the options with regard to wage increases during the coming years, they start with the prospects for labour productivity growth in the business sector. Added to that are the forecasts for the implicit price deflator. Combining this with an analysis of wage development among the most important competitor countries, the trade unions calculate a reasonable wage demand. If the nominal wage growth over time is equal to the sum of labour productivity growth in the business sector and the implicit price deflator, then the wage share will be constant. This means, from a structural perspective, that nominal wage growth has been in line with what the economy can handle without threatening company profits or long-term competitiveness.

The average Swedish real wage has increased since the mid-1990s by almost 50 per cent. However, the use of temporary work agencies has increased and the share of fixed-term contracts has gone in the same direction, not the least for young people. At the same time, many women in the public sector are denied full-time contracts, but instead have to rely on short working weeks and no permanent workplace. This is the result of both political reforms and negotiations among the social partners. At the same time, unemployment insurance has gone through major changes, and the risks associated with becoming unemployed are higher today than before, in terms of insurance entitlement, but also lower replacement rates. Furthermore, there is a connection between the supply-side reforms and a diminishing union density, although it is still around 70 per cent. Combining this with subsidies towards low productive and labour intensive services, it becomes clear that a low wage service sector is on the rise, with precarious working conditions and underqualified workers. Without strong unions the politically induced movement towards lower wages will be exacerbated.

2.2 Cracks in the "Swedish Model"

Despite increased income differences positive attitudes towards an egalitarian society are still very strong in Sweden. Although the income differences are much smaller in Sweden than in the United States, the same share of the population agrees with the statement that income differences are too big. This means that it is not a viable political strategy to announce a desire to increase income differences. On the contrary, reforms should be embedded in a language of increased equality.

The supply-side reforms of the labour market implemented since 2007 have the combined effect of making it more costly to be unemployed and more profitable to have a job. Money to enable lower income taxes has been financed from, among other things, savings in unemployment and sickness insurance. This will increase income differences: indeed, recent figures show that even the absolute income level has deteriorated for low income groups. However, the government is reluctant to recognise this and uses empirical models to show that in the long run, when dynamic effects are considered, everyone will be winners, but most of all groups on low incomes. This remains to be seen, and in all likelihood the job creating effects of these reforms have been overestimated.

Opposition criticism is mounting, but in general it lacks clear answers on how income differences could be reduced substantially. Also, the Social Democrats have been in power most of the time since income differences started to widen. The welfare state and the tax system redistribute less than before and the school system delivers more socially segregated results. Wage dispersion is growing and social insurance is in poor shape when it comes to providing income support, education/rehabilitation and inclusion. Only a few countries in the OECD area have stricter unemployment insurance criteria than Sweden when it comes to supporting the middle class during spells of unemployment: less than 40 per cent of unemployed persons today are entitled to income support from the unemployment insurance. If you are sick longer than 180 days, you run a clear risk of losing your job.

The challenge is daunting. Any serious attempt to address the issue of widening income differences requires consideration of the Swedish model's complete institutional structure. The current political debate, however, focuses only on single issues, neglecting the broad picture. The Social Democrats are having a hard time handling their own reform record and its consequences. It has to be acknowledged that a number of effective tools for narrowing income differences are no longer available. Furthermore, to reinstate them would require substantially higher taxes, which is seen as highly likely to scare off the middle class and push them even more firmly towards the rightwing coalition.

For the leading governing party, the Moderaterna, it is crucial to strike the correct balance between supply-side ideas and its established image as the new workers' party. This has led it to praise the "Swedish model" - at the same time as fundamentally changing it. The party argues that the aim is to restore the model to its structure before the late 1970s, when political intervention was intensified. But pursuit of such a balance is also leading the government to listen to trade union perspectives. When it seems to be the right strategic move, the government is willing to implement (some) reforms supported by the trade unions. However, the trade union movement is becoming more divided. The white-collar and academic unions, which are growing and not connected to any political party, are much more willing to listen to and endorse government policies. LO, the blue-collar confederation and an integral part of the Social Democratic movement, is losing members and is much more outspoken in its criticisms of the government. The government has been able to exploit this and is trying to widen the gap between these two trade union groups. Among other things, they can argue that they have support from the growing, non-party oriented, trade unions of the future.

Compulsory unemployment insurance and changes in the rules on hiring and firing are currently the two main topics in this strategy.

Summing up the first two sections, the Swedish model has been transformed almost beyond recognition in order to increase competitiveness with regard to its conventional focus on costs. The combination of increasing inequalities within Swedish society and external imbalances due to an exportfocus comparable to that of Germany makes a dangerous cocktail. The current growth momentum is based on a debt-fuelled consumption pattern within Sweden and a strong demand for its export products. Both components are built on economic quicksand.

3. Increasing Asymmetries with the World Market

The belief in free trade is strong in Sweden and Swedish companies became actors on the world markets early in the process of industrialization. From this follows a strong acceptance of structural changes and of high levels of job destruction. One argument is that: “people should be saved, not jobs”. This also meant that people have the right to get a decent income from the unemployment insurance when they are between two jobs. Also, they should have the right to upgrade their competencies when unemployed, with the purpose of being prepared for the next job (maybe in another sector of the economy). This focus on structural change and to remedy its side effects is also stimulated by a wage bargaining system in which centralized wage increases stimulates structural change and increased productivity. In this respect, the very foundation of the Swedish model is based on an acceptance towards, sometimes painful, structural changes.

Following the intensified globalization during the last decades, Sweden is becoming even more globally oriented. Foreign trade, defined as the sum of export and import shares, is today almost 100 percent of GDP. Manufacturing sectors exposed to intensified import competition is shrinking. The ownership of the mainly traditional Swedish manufacturing firms is becoming much more internationally diversified. Sweden is a heavy net exporter of foreign direct investments. Since 1994 has the current account been positive, on average by 6-7 percent of GDP. The main reason for this is a positive trade balance, mainly through manufactured goods.

The awareness of the conditions on the global market place and its repercussions on the Swedish economy is very much alive, both within the political system and among the social partners. The main debate concerns how national institutions have to change in order to cope with increased global competition and intensified tax competition. In late 2006, the new government initiated the Globalization council - consisted of academics, politicians and the social partners - with the purpose of getting a better understanding of the ongoing processes and what reforms that should be undertaken. However, the suggestions in the final report have been more or less ignored - and has somewhat faded away in the light of the financial crisis.

One type of criticism is directed towards the government. The argument is - as already mentioned above - thatit is too focused on the supply side reforms and that it pays to less attention on the demand side of the labour market coin. This includes both short term matching problems but mainly issues about research and development, innovation systems, the future of manufacturing and so forth. Basically, Sweden cannot move further up the value chain and meet the global pressure with reduced standards, but with higher priced and more productive goods and services. Despite the strong position in different rankings on competitiveness, it can be seen as a sign of weakness that the current account deficit continues to be so large over the years. Is it a problem of poor investment opportunities and weak returns to capital?

One aspect of the Swedish world market strategyshowed in the consequences of the financial crisis in 2008-09. The manufacturing production almost stopped completely in late 2008. This led to major redundancies, and as a consequence many firms were not ready to increase production when global demand returned. Nonetheless, there is a general positive attitude towards globalization, and the acceptance of structural changesprevails, even if corresponding benefits and costs are distributed more and more unevenly among Swedes.

Another sphere of the economy reveals structural weaknesses, as Sweden also runs the risk of missing out on its ecological growth potential. Germany's energy turnaround, by contrast, was a crucial step to lift its industrial model one level higher and increase its productivity in "green technology". Sweden, too, has enormous potential for an ecological industrial policy, but the current debate is characterised by political reluctance.

4. Missing Out on Green Potential

Sweden's ecological challenges are characterised by a similar pattern to the one described so far. The gaps between capabilities, aspirations and political and economic reality are striking. On the one hand, Sweden has no problems in meeting its climate targets under the Kyoto Protocol. Swedes are strongly aware of global warming and the necessity of CO_2 emission reductions. All major environmental pacts - for example, the Oslo Convention of 1972, the Paris Convention of 1974, the Helsinki Convention of 1974 and the Stockholm Convention of 2001 (regarding the reduction and usage of dangerous chemicals), not to mention the Rio, Kyoto and Johannesburg protocols - are accepted without question in Sweden.

The natural circumstances for meeting the short-term targets of the Kyoto Protocol are favourable. Sweden has a vast amount of natural resources, especially wood, iron and hydropower, while at the same time the population density is very low (geographically, the country is larger than Germany, but has only 9 million inhabitants). Tax policies for combating CO_2 emissions have been in place since the early 1990s and the energy-mix is relatively CO_2-friendly. Hence, Sweden has comparatively low per capita carbon dioxide emissions, calculated in relation to territory. At 6.6 tonnes of CO_2 per capita Sweden emits significantly less than many other industrialised countries.

However, there are a number of substantial challenges. The most obvious sign of this is that success in reducing territorial emissions since the Rio Earth Summit in Rio de Janeiro in 1992 has been very limited. In fact, direct carbon dioxide emissions have risen slightly. Moreover, when CO_2 emissions from production abroad for Swedish end-consumers are taken into account the picture changes dramatically. The underlying mechanisms are manifold. Most notably, as technological efficiency has increased both in areas such as heating and transportation, consumption, size of per capita housing and travel-distance has increased on a constant basis.

The ecological record becomes highly ambiguous if one looks at production and consumption patterns as well as patterns of trade. Sweden is highly integrated in world markets.

Focusing on CO_2 emissions from economic activities on Swedish territory alone - such as traffic, production, cattle and so on - would be too narrow a view in order to understand the Swedish ecological challenge. Key to analysing the challenge instead involves also incorporating figures on production abroad for final consumption within the country, which - as shown earlier - is increasingly built on private household debt. Taking in the whole production chain for consumption of final products in Sweden instigates a whole range of production activities in the global value chain of a product. A purely territorial account of emissions, therefore, however favourable it might look for Sweden, does not capture the ecological challenge. This challenge, indeed, applies to most economies in the world, but it is particularly important in the Swedish case with its high degree of imported consumer goods. Whereas it is difficult to estimate the exact impact of Swedish total CO_2 emissions on world ecosystems - including both territorial emissions and emissions from production abroad for Swedish consumption - it is clear that a significant part of energy savings and ecological efficiencies have been offset by increased consumption.

With regard to electricity, production in Sweden is largely CO_2 efficient, as more than 90 per cent of electricity is produced either by hydropower (storage systems) or nuclear power-plants. Wind energy accounts for only a small part, at about 2 per cent, and solar energy is insignificant. Sweden is also largely - although not fully - self-supporting in electricity. However, especially in very cold winters, Sweden is a net-importer of electricity, mainly from other European countries, notably Germany.

4.1 Gridlock instead of *Energiewende*

There is comparably little controversy about Sweden's environmental challenges. The main political and societal actors seem to agree on the need to develop environmental technology and the debate largely concerns how best to spur research and development, as well as production and export of renewable energy.

Swentec, the Swedish Environmental Technology Council, has stated that a considerable obstacle to improving Swedish environmental technology is insufficient internal demand and lack of investment capital. Despite favourable natural preconditions it has proved difficult to bring about the expansion in the environmental technology sector expected by many policymakers. In 2009, Swentec presented a paper containing proposals for improving permit processes and coordination between government authorities working with environmental technology. The Council pointed out that many other comparable countries have been significantly more successful in providing support for production and exports of green technology than Sweden. Although Sweden is reputedly at the forefront in the development of renewable technologies, the Council has warned of the effects of inadequate government action on incentive systems for increasing green technology investment and production.

Moreover, the strong local communes in the Swedish federal system, which decide on local land-use, make it difficult to implement a national strategy for ecological renewal. The bureaucratic procedures involved in, for example, setting up wind turbines take much longer than in neighbouring countries, such as Denmark, where national authorities are much stronger compared to local authorities. This makes an eventual "ecological turnaround" (*Energiewende*) rather cumbersome in practice.

The debate on nuclear energy is growing in significance. In the next few years, the national parliament will make a key decision on the future development of nuclear power. Since the

1976 referendum there have been plans for a nuclear phase-out, and several reactors have been closed over the years. However, in 2008 the conservative government agreed to allow new investment in nuclear power, and the Swedish Social Democrats are undecided about what stance to adopt. Therefore, even though nuclear power is expected to be heavily debated over the next few years, something like the German energy turnaround seems very unlikely. Only the Green Party and the Left Party are in favour of a rapid and direct nuclear phase-out.

On a more general level there is a public debate on the role of basic infrastructure in decreasing the environmental impact of economic activities and CO_2 emissions. As Sweden is a large country, transportation is crucial. National railroads need to be expanded as they have reached maximum capacity. Further subsidies to spur energy-efficient housing are expected to reduce emissions from heating. Within the larger cities, most notably Stockholm, there is a debate on how to improve public transport and reduce dependence on cars within the city. In 2005, a congestion charge was introduced in Stockholm and was, at least initially, a success. Today, however, traffic is back to its pre-congestion charge levels. Whether the initiative for investments should be primarily public or private remains an open question.

4.2 All Eyes on Competitiveness

A key determinant in Swedish environmental policy is the competitiveness of industry and the economy as a whole. The Swedish economy relies less and less on material- and carbon-intensive production processes. Since 1970, energy intensity has declined by about 40 per cent. One major factor in this was that it was a period of structural change in the form of an increased service sector. Also relevant to this development was a fall in energy intensity in certain industrial sectors.

An important question is the influence of international trade. If foreign trade plays a significant role in an economy, the structure of production may, as discussed earlier, differ significantly from the structure of consumption. In particular, increasing trade with China and India and the corresponding emission intensity of imported products are increasing Sweden's carbon footprint. This also explains why a whole range of public initiatives aim at "greening" consumption rather than production. Consumer subsidies for the purchase of (relatively) ecologically friendly cars are being applied. Since the early 1990s there have been a number of environmental taxes to indirectly subsidise carbon-friendly goods and services and also to wean people off the consumption of carbon-intensive goods and services.

Sweden is very careful when implementing incentives or disincentives for its energy-intensive industry, which is particularly dependent on exports to countries outside Europe, due to the risk of plant closures or relocations. Most energy-intensive companies have significantly lower marginal taxation as a result of special tax deduction rules. In particular, taxes, but also emissions trading are part of the apparent conflict between efficient environmental policy measures and the international competitiveness of companies or industrial sectors.

Key to the debate on "green growth" in Sweden is identifying the optimal way between cost efficiency and energy reliability (security). While Norway is focusing mainly on hydropower and oil and Denmark is expanding into wind energy, Sweden faces a more complex future. As a member of the European Union as well as the Nordic Region (with an already highly developed and integrated electricity market), the choice is not clear whether to look to Europe or the Nordic neighbours for future energy cooperation. The debate about Swedish consumption patterns is also slowly growing, as awareness is increasing of the large emission levels outside Swedish territory resulting from Swedish consumption.

High purchasing power and a high degree of welfare have given rise to a political debate on redistributing wealth by other means than by income increases, such as a reduction in general working time. There is also a debate about what mix of industrial and service-oriented jobs to encourage and the ecological footprint of jobs in different sectors.

In sum, although it has a history of being at the forefront of ecologically friendly technology and innovation, Sweden is increasingly lagging behind on two major future development paths. One is the pace of implementation of renewable energies. Although research and development on renewable technologies is well-funded, there are currently insufficient opportunities to commercialise innovations. The other challenge is the dilemma arising from Sweden's effective ecological footprint due to its dependence on imports of consumable goods.

5. A New Swedish Model Needed

We have argued that possible efficiency gains from reforms over recent years have been overestimated - especially when you consider second - and third-round effects from increased social differences, a more socially segregated society and changed attitudes towards trade and globalisation. Without a systematic analysis of the institutional structure and how different parts closely interact, it becomes easy to implement reforms that seem natural in the short run, but, due to institutional interdependencies, are detrimental in the longer run. Traditional incentive-driven supply-side reforms, intended to increase efficiency, may lead to a situation with a worse distribution of life chances at the same time as the economy is shifting the production possibility frontier inwards. The most pressing supply-side reforms are not to lower taxes or to reduce social benefits, but to improve the school system and to introduce a comprehensive system of lifelong learning.

At the same time, giant growth potential is dearly underused. "Greening" the economy as well as the average Swede's lifestyle presents an opportunity to increase wealth and to rebalance the economy as a whole by focussing on education, ecological industrial policy and appropriate wage trends.

There is not only room but also an urgent need to take a comprehensive approach to the Swedish economy and the Swedish model as such. The Swedish Social Democrats are potentially in a good position to undertake such a project. After all, it was they who embodied universalism in the Swedish welfare system. Welfare reforms had a tangible impact on basic insurance and the quality of Swedes' lives. Pension reforms, day care expansion, sick leave possibilities, parental leave and the expansion of free higher education - all these reforms were derived from the Social Democratic idea of general welfare. The system delivered to all and was paid for by all. In sum, it was a powerful and highly effective "automatic stabiliser" of the Swedish economy. A large part of the increasing imbalances and asymmetries within the current growth model must be traced back to more market-oriented reforms of welfare institutions. They are part of the structural fragility we have identified.

Against that background, the conservative government faces increasing criticism. Public dissatisfaction with increasingly dysfunctional welfare institutions is growing. The current Swedish economic success story is built on shaky ground. A time-window is looming for the

Social Democrats to recapture their own model and regain their mandate to shape Sweden's future. However, this requires the definition of a comprehensive alternative project. This, analogous to the welfare state, must be built on a holistic approach to rebalance the country with a particular focus on growth generation, the work-life dimension and sustainable lifestyles. Defining certain limits for markets is imperative for that purpose, as are efforts to secure substantial sources of finance for this project.

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