

Who has the best playing field for tax competition: the United States or the European Union?

By [Sarah Guillou](#)

Two recent events demonstrate the differences in the American and European views on tax competition. First was the case of Boeing, which the European Union (EU) has brought before the World Trade Organization (WTO). The EU is challenging the tax incentives offered by the State of Washington to the American aircraft maker. Then there is the European Commission's investigation of Luxembourg's tax provisions that benefit Amazon, the Internet retailer. Boeing and Amazon both make massive use of tax competition. While this is widespread and accepted in the United States, it is being increasingly questioned in the EU, and even excluded by law if it is classified as illegal State aid.

In the Boeing affair, in December 2014 the EU filed a request for [consultations](#) with the WTO regarding the tax subsidies paid by the State of Washington for the manufacture of the new Boeing 777X. This aid would amount to 8.7 billion dollars for assembly in the State. This programme was set up in November 2013 by the State of Washington, and the governor has now decided to extend it until 2040! The incentives are conditioned on the use of local products, i.e. the aid is linked "to local content requirements ". However, these requirements are contrary to the WTO Agreement on Subsidies and Countervailing Measures. We are not going to discuss here the EU's complaint, which is awaiting a response from the US, and which is part of an ongoing dispute between Boeing and EADS about their respective public subsidies. This case,

however, offers an opportunity to take a look at the intensity of tax competition that exists between the various States in the US.

While the US, like the EU, is concerned with non-discrimination, which is set out in the doctrine of the Commerce Clause of the US Constitution, in practice it has been difficult for case law, which performs an *a posteriori* control, to provide a definition of discrimination that makes it possible to prevent discriminatory regulations. The result has been that the American States are free to offer subsidies and tax breaks to companies, or sometimes specific companies, to attract investment and jobs. Recall that in Europe, controls on State aid are performed *a priori* and that granting subsidies to any specific companies is totally excluded (see [Guillou, 2014, OFCE blog](#)). In the US, Boeing is a major player in this tax competition.

An American research center "[goodjobsfirst](#)", which tracks the aid and subsidies granted to companies by public institutions, showed that a mere 965 companies received 75% of all aid. It is Boeing that receives the most aid. This comes mainly from two States, Washington and South Carolina, with numerous subsidies (130 agreements) from all over the United States. The combination of all the aid brought to light amounts to 13 billion dollars. Boeing comes far ahead of all other companies, as second-place Alcoa receives less than half as much (5.6 billion dollars). Another [study](#) found that 22 States competed to host the production of the new 777X airliner, but Boeing ultimately decided to stay in the Seattle area and entered a 16-year tax agreement with the State of Washington that is estimated to be worth more than 8.7 billion dollars, the largest tax break in the United States. Business lobbying is much more common in the United States than in Europe, which explains much of the competition between States to attract business. While the United States has complained of foreign tax competition (especially vis-à-vis Ireland), it accepts

this completely on its own territory. This is not the prevailing position in the EU, of course, as the EU is not fiscally integrated.

Indeed, in Europe, tax harmonization is not yet on the agenda. But tax competition is being increasingly debated. This has not been in vain, as this pushed Ireland to abandon its "double Irish" system that allowed certain companies located in Ireland to be taxed in tax havens. Companies taking part in this tax scheme began the process of withdrawal in January 2015. While differentiated taxation is still accepted in Europe, excessive tax competition has been considered intolerable in the common market. When companies' tax optimization strategies come together with national strategies to attract jobs and investment, the ingenuity of the tax authorities becomes a threat to the common market. What is most worrying is the legitimization of the avoidance of common tax rules.

European controls on State aid act as a powerful guardian over the use of public resources and on non-discrimination in the European market. These controls could well become an instrument in the fight against tax "loopholes", vulnerabilities in the tax system that result in significant losses of public resources. The case against Luxembourg concerns its system of "tax rulings". The tax ruling is a procedure whereby a State negotiates with a company about its future tax status. This procedure, which has been called the "marketing of State sovereignty", is widespread in Luxembourg and was brought to light by a recent investigative report published in November 2014 (*Le Monde*), which shows that Luxembourg is not the only country to use these "tax rulings".

Luxembourg attracts a large number of multinational firms that choose the location of their European headquarters based on tax optimization. It is the EU country with the lowest percentage of GDP (the production of residents) out of GNP (domestic production): this figure was only 64% in 2013,

against just over 100% for France and Germany. In other words, Luxembourg lost more than one-third of its national income once the payment of income to resident foreign companies was taken into account (net of income received). This reveals the fiscal opportunism of the numerous multinationals located in Luxembourg, for which the local market is clearly not a target.

In this case, Luxembourg has granted Amazon a valuation of its transfer pricing that the European Commission (EC) considers overestimated, which thus leads to underestimating the tax base (see the recently released [EC decision](#)).

Transfer prices are the prices of the goods and services traded between subsidiaries of the same corporation. These exchanges should theoretically be valued at market prices, that is to say, the price that would be paid by a company that is not a subsidiary of the corporation. The way these prices are decided may change the amount of a subsidiary's purchases and revenues, and thus its profits. The logic of the corporation is to minimize profits where tax rates are high and shift them to where rates are low. It is not so much the price of goods that are manipulated as the price of intangible assets such as patents, copyrights or other intellectual property (trademarks, logos, etc.). Multinationals that hold intangible capital, such as the giants of the Silicon Valley, are the ones that most commonly engage in this type of manipulation.

One way to prevent the manipulation of transfer pricing in Europe would be to make it obligatory to calculate a common consolidated corporate tax base. This is the purpose of the [draft CCCTB directive](#) from 2011, which is still under discussion. Trade-offs between the various European countries would be pointless, as the tax base would be consolidated and then distributed among the member States based on a formula that takes into account fixed assets, labour and sales. The States would retain control of their tax rate on corporations.

It is expected that this common base scheme would be optional. It is not certain that this would suffice to get the directive passed, as in fiscal matters this demands a unanimous vote whereas, for the moment, there is a great deal of disagreement.

On the other side of the Atlantic, the United States has a consolidated tax base system at the national level and a common federal tax rate on corporations. But local taxes, which can vary between 1% and 12%, are generally deductible from the federal tax calculation. The issue of transfer pricing between subsidiaries in different States may therefore also arise. And this is especially so, given that the local tax rate on profits is subtracted from the various tax credits awarded to certain companies.

The outcome of the investigation into Luxembourg and Amazon will be important for the future of the CCCTB Directive, in particular the version that affects only digital businesses. If the day has not yet come when the EU rules that “banking secrecy is a disguised form of subsidy” (G. Zucman, [The hidden wealth of nations](#)), the investigation into Amazon indicates that the EU is beginning to put some limits on tax competition that could soon make American taxpayers jealous.

French competitiveness: The object of a supply policy

By [Sarah Guillou](#)

The 2014-2015 edition of [The Global Competitiveness Report \[1\]](#)

by the World Economic Forum sheds light on the political debate between those who like to prioritize a supply policy and those who instead make the conditions governing offer their top priority. Note that competitiveness is a key factor in future growth in mature economies that specialize in high-tech or high added-value products [\[21\]](#).

France ranks 23rd in terms of the global competitiveness indicator calculated by the World Economic Forum. This competitiveness indicator goes beyond conventional measures based on relative production costs to incorporate many sub-indicators (100 in total) that cover a variety of dimensions, including the functioning of product markets, labour markets, and institutions; indicators about human capital, infrastructure and innovation; and qualitative measurements from business surveys. The result is a set of dimensions that identifies a country's level of productivity in detail. The competitiveness indicator proposed is "global" in terms of both the extent of the dimensions included and the number of countries covered.

Competitiveness is measured relative to 143 countries. The weighting of the sub-indicators is deduced from the membership of countries in a category based on their level of economic development: Phase 1, governed by the availability of factors; Phase 2, in transition from Phase 1 to Phase 3; Phase 3, governed by the efficiency of the factors; Phase 4, in transition from Phase 3 to Phase 5; and Phase 5, governed by innovation. Depending on the category, the weight assigned to each sub-indicator in determining the level of competitiveness differs. This explains why the ranking does not fully reflect the traditional hierarchy of countries based on their level of economic wealth. Moreover, the diversity of the indicators that come into play can result in countries with very different economic profiles being ranked more closely: hence Russia (53rd) is nipping at the heels of Italy (49th), and the UAE comes right after Norway (11th).

With respect to the debate on supply-and-demand dynamics, it is interesting to note that the global competitiveness indicator is based on a set of sub-indicators that are not all associated with structural reforms associated with supply, and many of them result from a balanced support for demand. For example, the provision of high-quality human capital (skilled, healthy, etc.) requires not only an environment that values labour and rewards merit but also a level of security and social welfare which contributes to a quality of life that attracts and retains human capital, and therefore a certain level of public spending. This is also the case for infrastructure. More generally, the competitiveness indicator is the result of achieving a balance between the level of public spending and structural reforms in such a way that the indicators wind up complementing each other.

Switzerland's no. 1 ranking recognizes the quality of its business environment – infrastructure, human capital, institutions, trust, macroeconomic stability – which makes up for the weakness of its market size and its degree of openness and specialization in high-tech manufacturing industries [\[3\]](#). Six European countries are in the top 10, which is reassuring for the European model [\[4\]](#). The French economy has stabilized its position in the ranking with respect to the previous year, following four years of decline – it was ranked 16th in 2008.

Of the 144 countries ranked, France owes its position in the first quintile (the top 20%, *i.e.* the first 28 countries) to the quality of its infrastructure and educational system, its technological level and its entrepreneurial culture [\[5\]](#). Competitiveness is primarily a relative concept, and in a global economy where more and more countries aspire to be in the top 10 economic powers, judgments about the French economy depend heavily on the group to which it aspires to belong. What raises questions is that France long belonged to the top 10, and its main companions historically are still there (Germany, the United Kingdom, Belgium, Netherlands and the

United States). Relative to the first quintile, which includes 13 other European countries, the United States, Canada, Japan and China, France's position at the tail end is far from glorious and requires us to take a look at the indicators that rank the French economy among the least competitive. The main reasons for this result are the functioning of the labour market, the State's fiscal position, and the country's relatively poor performance in providing an environment favourable to work and investment.

More specifically, an analysis of the specific sub-indicators (from the 100) for which France's performance puts it in the bottom third of the 144 countries, *i.e.* a ranking between the 96th and 144th spots, and a comparison with its neighbours (see Figures 1-3), reveals the following points:

- 1) The dimensions that show the greatest contrast relative to Germany, the United Kingdom and the United States include the burden of administrative regulations, the impact of taxes on investment incentives, the impact of taxes on work incentives, cooperation in labour-management relations, hiring and firing practices and the rate of taxation as a percentage of profits.
- 2) France's lacklustre performance is often exceeded by that of Italy.
- 3) The indicators on French fiscal policy are problematic, but this is not strongly different from the situation of its partners.

The functioning of the labour market, and more generally the regulatory environment influencing incentives to work and invest, thus emerge as the dimensions pushing down the global competitiveness indicator. Note that these indicators are derived from objective measures (such as number of regulations, level of taxation, macroeconomic data) but also in large part from responses to a survey of business leaders. These leaders have to indicate on a scale of 1 to 7 their

assessment of the various factors underlying the indicators. In the main the indicators thus express a felt reality. For France, the low ranking in the dimensions identified in point 1) reveals the **severity** of the judgment of these business entrepreneurs.

The lessons for economic policy are as follows: the scope for progress and the specific reasons for France's position lie in the dimensions outlined in point 1). The priorities for structural reform are cumbersome administrative regulations, incentives for work and investment, and the quality of labour-management relations. But what policies are needed to deal with these issues?

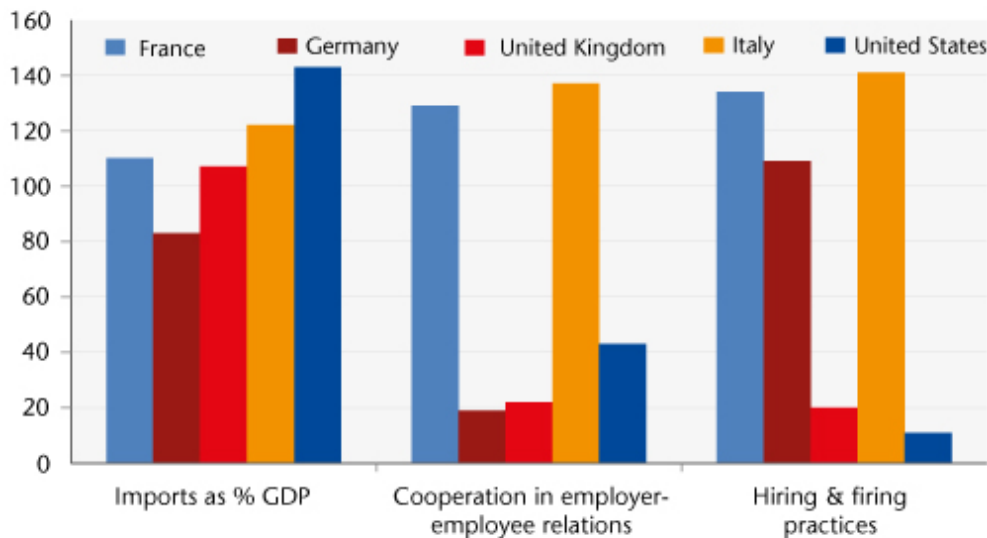
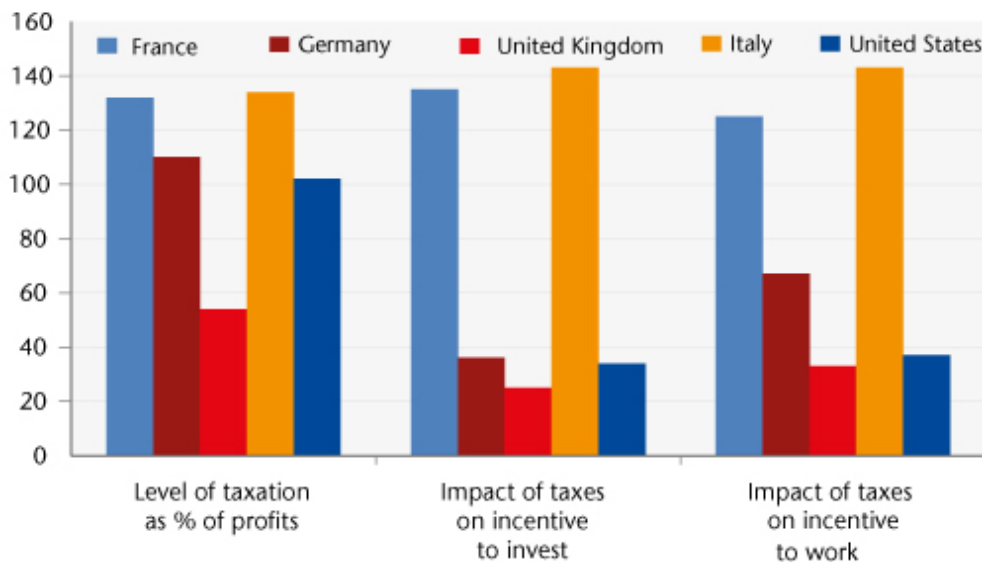
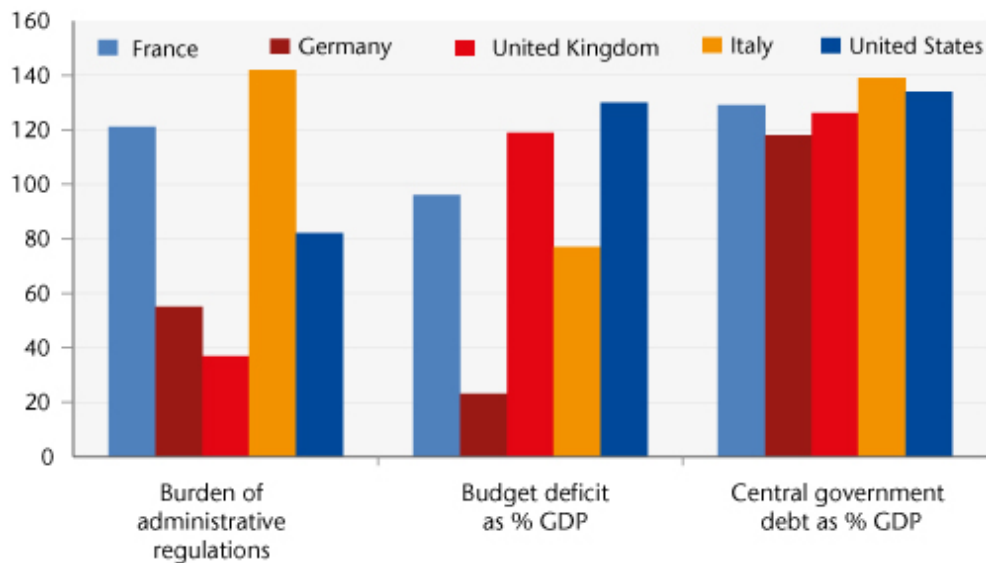
Administrative simplification and the Responsibility Pact are a step in the right direction, but it is questionable whether the measures taken will affect the way business perceives economic incentives in the administrative-legal environment. Moreover, nothing is being done in terms of improving labour-management relations. Finally, it would be desirable for government to adopt a neutral and stable position vis-à-vis companies, a position that neither maligns their economic rationality nor undermines their power over the industrial future. And even if the divorce between the State and business is in part "constitutional", as Jean Peyrelevade [\[6\]](#) argues, we cannot give up efforts to improve social dialogue and to reconcile French companies with their economic and regulatory habitat. This is one of the keys to French competitiveness.

Finally, the three lessons of this Report are 1) to keep in mind that competitiveness reflects a combination of many elements that cannot simply be reduced to facilitating the exercise of economic activity (*i.e.* tax cuts, labour market flexibility), 2) the most competitive economies are not those where public authority has retreated, as many dimensions require a State that makes effective investments (in education and infrastructure) and guides capital (for example, into renewable energy); and 3) the margin for progress towards a

more competitive **France** today lies not in public investment, but in incentives for social dialogue, employment, labour and investment.

The WEF classification thus provides clear evidence that supply conditions in France can be greatly improved and that to prioritize the competitiveness of the French economy reforms in this direction are imperative.

Figures 1 to 3: Classification of France, Germany, the United Kingdom, Italy and the United States for the specified indicators out of the 144 countries ranked in the Global Competitiveness Report 2014-2015



Note: Figures 1 to 3 depict a country's ranking for each of the specific indicators, with a smaller bar indicating a better ranking.

Source: World Economic Forum, Global Competitiveness Report 2014-2015, author's graphics.

[1] The World Economic Forum began to calculate competitiveness in 1979, and since then has gradually extended its efforts to embrace more dimensions and countries.

[2] These productive activities are in effect associated with increasing returns to scale (due to high fixed entry costs, in particular R&D), which implies economic viability on a large scale: in other words, on a scale that goes beyond simply the domestic market.

[3] Likewise, political transparency is more highly valued than economic transparency.

[4] Switzerland, Finland, Germany, Netherlands, United Kingdom, Sweden.

[5] “the country’s business culture is highly professional and sophisticated” (page 23).

[6] J. Peyrelevade, *Histoire d’une névrose, la France et son économie*, Albin Michel, 2014.

**The French fiscal
devaluation, or the French**

Achilles strives to catch the German tortoise

By [Sarah Guillou](#)

In the 1980s, under the European Monetary System (EMS), France repeatedly carried out currency realignments – in 1981, 1982, 1983 and 1986 – that were tantamount to devaluations. For its part, Germany had – already! – adopted a rigorous strategy of competitive disinflation, which, it was said at the time, led to disciplining its companies, which could not rely on the temporary advantages gained by currency devaluations rendering its exports more competitive. They were compelled instead to make investments so as to build up their future non-price competitiveness. Which they did...

During this same period France's devaluations left it with imported inflation and companies that had less incentive to invest in non-price competitiveness. The peg to the deutsche mark and then the Monetary Union were presented as ways to break out of this endless strategy of inflationary devaluations. France belatedly wound up adopting Germany's strategy of competitive disinflation and renouncing currency devaluations, with a strong franc strategy characterizing the 1990s.

Today, the terms of the debate seem reversed, even though France is still in the position of Achilles chasing the German tortoise. A new form of competitive devaluation is in favour: not based on the exchange rate, since the euro is part of a market mechanism that determines its value, but one that involves a reduction of the labour costs borne by business, funded in part by an increase in Value Added Tax (VAT). This is called a fiscal devaluation. In an article entitled "Changer de Modèle", P. Aghion, G. Clette and E. Cohen defend this on the grounds that it is necessary to "think

differently”[\[1\]](#). The government is also implementing this through the Competitiveness and employment tax credit (CICE) and its plans in the 2015-2017 Stability Pact to cut social security charges.

How is a reduction in the cost of labour comparable to a “fiscal” devaluation? A devaluation, it should be recalled, leads to lowering domestic prices relative to foreign prices as the value of the domestic currency is decreased relative to a unit of foreign currency. A devaluation of the euro, if it were possible, would mean a higher amount of euros to buy a dollar; consequently, a European car at 10,000 euros would go for fewer dollars and thus become more attractive to an American buyer who would still be holding the same amount in dollars in his wallet. More generally, a devaluation ensures that the production cost of domestic firms becomes cheaper relative to their foreign competitors, so that the former have a cost advantage and become more competitive. Hence the term “competitive devaluation”.

By lowering companies’ labour costs, it is assumed that the prices of exported products (and the goods and services included) will be lowered – despite the fact that labour costs do not cover the full cost of production. By increasing VAT on all products, the price of imported products increases as well. The devaluation effect – that is to say, the reduction in domestic prices relative to foreign prices – will take place only if the competitors’ prices remain constant – in other words, only so long as the competitor does not implement the same policy at the same time! Furthermore, this will really have an impact on competitiveness if the price differential existing prior to the fiscal devaluation is more than offset by the reduction in labour costs.

Two further questions arise. First, we do not know the price elasticity of the labour costs. In other words, we do not know the extent to which firms pass lower employer costs onto prices. Second, labour market studies show that wages have a

positive elasticity to labour costs. In other words, in the medium term and especially for higher wages, cutting payroll taxes on wages will result in increases in pay.

The medium-term effects are then drawn on to defend the fiscal devaluation policy. The reduction in employer contributions initially gives some manoeuvring room, or rather a cash flow, that then leads companies to invest, precisely because of the recovery in their margins. Incidentally, this excludes the previous effect, *i.e.* a reduction in prices, or in any case will have a maximum impact if the price drop does not occur. It is possible however that higher margins are a side effect of a reduction in prices, which pushes up sales, while increasing the profit per unit in a cost structure with increasing returns to scale, even if this affects only a few companies. Now suppose that the margins generated translate into investments. This could improve the companies' non-price competitiveness (the intrinsic product quality) in the future. This second aspect of fiscal devaluation is often put forward in parallel with the observation that French companies, in particular manufacturers, suffer both from crippling tax and regulatory conditions that handicap their international competitiveness and from a lack of product quality. But here macroeconomic analysis can no longer be invoked, and with respect to non-price competitiveness we know much less about the microeconomic dynamics due to the reduction of charges.

Let's conclude by considering the effects expected over the longer term. As pointed out by Aghion *et al.* in a footnote on page 58, the effects of a fiscal devaluation are temporary. Indeed, as with a currency devaluation, a fiscal devaluation will lead to an increase in wages due to the dynamics described above. Moreover, if the financing of the reduction in charges results in reducing households' purchasing power due to the VAT hike, then the latter could also demand an increase in their nominal wages. The initial reduction in relative prices will be wiped out over the longer-term by the

rise in wages. The authors could draw on the quasi-deflation in Europe to deal with this side effect of a devaluation. They argue instead that the interval will give a new impetus to business. In fact, what the authors defend is not the direct effect of the devaluation but its indirect effect on the level of investment due to the increase in margins.

However, this is also undoubtedly the aim of the CICE tax credit, as it targets taxes and not employer charges directly, unlike the Responsibility Pact which is aimed primarily at employment. By granting a tax credit, the CICE seeks to generate margins for investment in order to develop non-price competitiveness. The problem is that an improvement in competitiveness is far from guaranteed (see Guillou and Treibich, [Note de l'OFCE, no. 41 of 19 June 2014](#) [in French] on the CICE and competitiveness), while the dual objective of this tax credit (employment and competitiveness) will complicate companies' decision-making.

To pick up on the suggestion by Aghion *et al.*, the memory of the French competitive devaluations of the 1980s could lead us to "really think differently", that is to say, to stop applying policies that others have already applied. To think otherwise would mean to anticipate future competition rather than to replicate a policy that other countries have already implemented, which is obviously not so simple. And the interest of the work of Aghion *et al.* is in embracing a set of reforms that, taken **simultaneously**, could put France on a **different** trajectory.

But to undertake a fiscal devaluation while all the countries of Europe potentially will do or actually have done the same would generally be insufficient and even dangerous if it leads to a race to social dumping. It would be justified only because European integration requires a certain alignment of companies' cost conditions, and thus due to fiscal competition. Repeatedly lagging behind fiscally in an integrated European market is very costly, it is true, but the

French Achilles will not catch the German tortoise that has set off early in the field of competitiveness by using the weapon of a fiscal devaluation.

A better strategy would be to get ahead of the game. In the absence of being able to harmonize companies' fiscal conditions, it is necessary to anticipate. Germany anticipated competition from the emerging countries and implemented social VAT, or a fiscal devaluation. A policy that would change the "model" should anticipate future competition in Europe and around the world. However, this competition will not be over the cost of labour. Proof of this lies in the approach of countries with a low relative cost of labour that are more and more replacing labour with capital. China for instance has already become the world's largest purchaser of industrial robots (*Financial Times*, 1 June 2014). Future competition will be structured around the pursuit of two trends already taking place: the division of the production process as it is being accelerated by technological possibilities, and the replacement of labour by technology. Most value added will be focused upstream of production in design and / or downstream in related services. In other words, the government also needs to take an interest in the cost of capital, particularly in terms of the opportunity cost of investment.

The question of labour costs concerns the employment of less-skilled workers (obviously of great importance *per se*), but it is not at the heart of the problem of competitiveness. In attempting to solve the problem of the day, the cost of labour, there is a risk of not making the investments that ensure the future. Could France stop being the Achilles that chases the German tortoise? One way to resolve Zeno's paradox would be to invent a government that maintains continuity. Otherwise, we need to do away with a strategy of catching-up and opt for a more winning "model".

[1] This is in fact the title of the first chapter of the book by P. Aghion, G. Clette and E. Cohen, *Changer de modèle*, Ed. Odile Jacob, 2014.

Europe's control of public aid: good or bad for industry?

By [Sarah Guillou](#)

Following a meeting of the Ministers of Industry in Brussels on 20 February 2014, Arnaud Montebourg criticized the European Commission's control of aid, which he considers too strict at a time when industry needs assistance. He wants aid for energy-intensive industries to receive an exemption due to competition from US companies that have much lower energy costs (estimated, on average, at one-third of the cost in Europe). More generally, Arnaud Montebourg was very critical of Joaquin Almunia, the European Commissioner for Competition. So is the Minister of Industrial Renewal (*Redressement productif*) right to castigate the control of State aid by the European Commission?

What does public aid for business entail?

"A transfer of wealth, directly or indirectly, from a public entity to an autonomous economic entity" – public aid to business can take a variety of forms. In France, half of State aid is made up of tax expenditures (tax credits or various

exemptions), a third of financial support (loans, guarantees, capital), and the rest consists of direct and indirect subsidies.

A recent report by the General Inspectorate of Finance (IGF 2013) estimated the amount of public aid granted by the central government and local authorities to economic actors at 110 billion euros. Included in this total are measures such as reduced VAT rates (18 billion), reductions on social security contributions on low wages (21 billion), the CIR research tax credit (3.5 billion), as well as more than 600 State schemes and even more under local authorities.

The report highlights the complexity of the system of aid, which is the result of a kind of sedimentation of successive measures, sometimes with intervention levels intermingled, and with many programmes involving small amounts. Criticizing the goals and effectiveness of this system, the report's authors lament that industry is not a bigger target: ultimately it receives only 2 billion euros (excluding CIR and relief from social security contributions and VAT), while agriculture receives 4 billion.

What justifies the European Commission's control of public aid?

A direct consequence of the implementation of the single market, Europe's control over State aid is a tool of European competition policy that is intended to ensure the existence of fair competition and to fight against distortions created by advantages granted by a State to its own companies. The fight against a "race to the top" in terms of aid is thus subject to control. Under [Article 87, paragraph 1, of the Treaty establishing the European Community](#), State aid is deemed incompatible with the common market, and Article 88 gives a mandate to the Commission to control such aid. But Article 87 also specifies the criteria that make aid "controllable" by the Commission.

A policy of support comes under the control of the Commission if it involves 1) specific aid (aid not paid to all firms or households, such as a general tax reduction), 2) the support policy involves a commitment of the State's public finances, whether direct grants, soft loans, tax credits, the supply of equipment, etc. 3) the support provides a specific advantage to companies, an industry, or a region (which they would not have received without the State's intervention) 4) the support distorts competition and may affect trade between the Member States – the [*de minimis rule*](#) exempts small amounts of aid.

What aid requires notice to the European Commission?

Aid to companies is subject to approval by the European Commission when it exceeds 200,000 euros over three years and it is not covered by arrangements for exemptions decided by Europe. In theory, aid may be granted only once the Commission's approval has been obtained. This is binding at a time of emergency measures and undeniably affects economic sovereignty. The interval between notification and a decision can range from 2 months to 20 months, or even more if an investigation is needed. The Commission has the power to require the reimbursement of aid that has been already paid and is deemed illegal; the EU Directorate-General for Competition exercises this control, with the exception of aid for agriculture and fisheries, which is under the control of their respective directorates. Legislation is constantly being adjusted to the economic situation, as happened at the time of the financial crisis in order to support the banking sector.

In an effort to simplify the controls and reduce administrative burdens, a general regulation on block exemptions, adopted in 2008, has clarified cases where no notification is necessary. There are numerous exemptions, which revolve around the following five themes: the Lisbon strategy, sustainable development, the competitiveness of EU industry, job creation, and social and regional cohesion. This system of exemptions shows that control is also an expression

of European policy choices that are guiding State aid, and therefore public resources, towards uses that accord with these choices.

Is aid often refused?

According to Mr. Almunia, 95% of the aid examined is authorized. The statistics provided by the 2000-2013 Scoreboard ([DC, Europa Scoreboard](#)) show that 88% of notifications related to industry and services lead to the conclusion that the support measure in question does not fall within the definition of public support, hence there is no objection. Another 5% of decisions are positive, and 1% are conditional. This comes close to the 95% cited. The remaining 5% consist of support measures that have been rejected by the Directorate for Competition, part of which (4%) will be recovered. Since 2000, this amounts for all the Member States to 251 refusals, the equivalent of an annual average of 22 refusals from 2000 to 2007, and 12 from 2008 to 2013.

The notifications from the French State overwhelmingly concern regional aid, especially for the DOM-TOM overseas territories, aid for certain agricultural sectors, and aid for R&D. For example, aid to Renault's HYDIVU project from the Agency for the environment and energy, notified in March 2013, resulted in a decision in October 2013 that the measure did not raise any objections. The aid to R&D for innovative young companies notified in December 2013 led to a decision in February 2014 by the Directorate for Competition that the measure did not raise any objections and was covered by the exemptions for support for R&D.

More recently, the Commission agreed to the State's entry into PSA's capital after having accepted the need for the company's restructuring in July 2013 (decision [SA.35611](#)). This capital acquisition was not found to constitute State aid. The French State was considered a private investor, just like the Chinese company Dongfeng.

In 2013, the French government issued 47 notifications, none of which raised objections. To date only one is under investigation: the alleged subsidies to public transport in the Ile-de-France region around Paris.

What is France's position with regard to State aid?

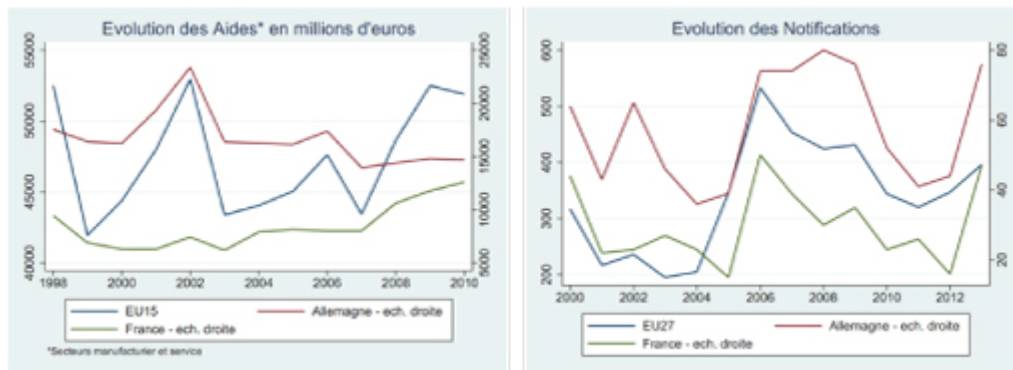
Of all the notifications addressed by Member States to the Directorate for Competition from 2000 to 2013 – i.e. 4765 in the field of industry and services – France sent 8.8%, compared with 10% for Italy and Spain, 17% for Germany and 6.4% for the UK. The French State, so often accused of a Colbertist tendency, on average gave notice over the period of about half as much aid as Germany. The statistics provided by the “Scoreboard on State aid” ([DC, Aid in volume and as a % of GDP](#)) can be used to see France's position in the EU15 in terms of the volume of aid granted relative to GDP. Table 1 shows that France is about average: higher than the group of countries with a free market tradition (UK, Netherlands, Belgium, Austria, Luxembourg) but below countries with a social-democratic tradition (Denmark, Finland, Sweden, Germany). With regard to the volume of aid relative to its purpose, it is customary to distinguish sectoral aid that benefits a particular sector, an “old version” brand of industrial policy, from horizontal aid that caters to all businesses, a “modern” brand of industrial policy, such as support for R&D. Once again, France occupies a middle position in terms of the percentage of sectoral aid relative to the EU15 group.

Table 1. Average public aid per country in the EU15 from 2000 to 2012

| Country | Total | | Service and Manuf. | | % total aid | |
|----------------|---------------|-------|--------------------|-------|-------------|------------|
| | Millions of € | % GDP | Millions of € | % GDP | Sect. aid | Horiz. aid |
| Austria | 1688,0 | 0,59 | 1214,3 | 72 | 27 | 73 |
| Belgium | 1567,4 | 0,44 | 1117,3 | 71 | 24 | 76 |
| Denmark | 2091,9 | 0,87 | 1719,6 | 82 | 17 | 83 |
| Finland | 2347,2 | 1,29 | 628,2 | 27 | 68 | 32 |
| France | 13495,8 | 0,69 | 8480,4 | 63 | 40 | 60 |
| Germany | 18130,5 | 0,75 | 16635,3 | 92 | 30 | 70 |
| Greece | 1462,8 | 0,68 | 841,3 | 58 | 36 | 64 |
| Ireland | 1193,7 | 0,79 | 684,8 | 57 | 54 | 46 |
| Italy | 7094,7 | 0,44 | 5232,7 | 74 | 32 | 68 |
| Luxembourg | 111,1 | 0,28 | 63,6 | 57 | 35 | 65 |
| Netherlands | 2429,8 | 0,43 | 1331,8 | 55 | 43 | 57 |
| Portugal | 2217,0 | 1,32 | 1462,5 | 66 | 80 | 20 |
| Spain | 6196,7 | 0,63 | 4833,1 | 78 | 47 | 53 |
| Sweden | 2751,5 | 0,74 | 2036,5 | 74 | 19 | 81 |
| United Kingdom | 4659,2 | 0,26 | 3201,5 | 69 | 29 | 71 |

Source : European Scoreboard Statistics, author's calculations.

Both the volume of aid and the notifications are very sensitive to a country's economic and institutional environment and to shocks to this environment (German reunification, industrial restructuring, etc.). France is among the countries that have granted more aid in the recent period (2010-2012) than in the beginning of the crisis period (2007-2009). Countries that are comparable to it (Germany, Italy, Spain) have instead reduced their aid payments. The following graphs show changes in the volume of aid (constant euros). While the amount of aid clearly increased in 2007, the crisis does not seem to have fundamentally altered behaviour in terms of notifications. Aid for the banking industry is the subject of a specific legal system and separate accounting. The amounts described therefore do not include aid to the banking sector.



Source: DC, Europa State Aid Scoreboard Statistics.

There is nothing to show that the European Commission's controls on aid have hurt industry

This brings us to the question that concerns our Minister. If the level of public aid is positively correlated with manufacturing's share in the economy (see [Guillou S., 2014](#)), this is mainly because the characteristics of the manufacturing industry – regional imbalances, R&D, environmental investment – correspond more to the criteria for the authorized payment of aid. The manufacturing sector has also been characterized historically by lobbying, a potential trigger for aid, and is also the sector most exposed to international competition. There is no evidence that the causality would run from State aid to manufacturing's share of value added. The reverse is much more likely.

Moreover, a careful analysis of the European Commission's control of aid shows that negative decisions are relatively rare. But a strong inhibitory effect cannot be excluded, in the sense that governments might exercise self-censorship in light of their knowledge of the case record of Europe's Directorate for Competition. This kind of censorship is difficult to quantify, but it is detectable for all the Member States in the decrease in notifications since controls were implemented.

There is however much room for exemptions, spaces in which aid to industry may be authorized. If indeed it is not possible to

envisage a "CICE" tax credit that would be reserved for companies in the manufacturing industry alone, as this would be too selective, any measure is acceptable that is considered support for innovation and R&D, the development of renewable energies, the handling of regional and major sectoral imbalances, or job creation.

Moreover, a judgment on aid's legality is based on an economic cost-benefit analysis, which is sometimes not exempt from criticism or debate, but is undeniably based on an economic assessment of the allocation of public funds and of any distortions in competition that this allocation could create. There are *a priori* rules mandating rejection or acceptance, but most cases are subject to a reasoned economic analysis. This consists of a "balancing" between "the contribution to the attainment of an objective of well-defined common interest", such as efficiency or equity, and "the resulting distortion of competition and trade". The measure is also reviewed in order to determine its appropriateness, its effectiveness as an incentive and its proportionality. Finally a comparative scenario, a sort of counterfactual that envisages no implementation of the aid, is also used to help reach a decision.

On the question of support for energy-intensive industries, firms that consume electricity intensively have generally negotiated preferential rates with energy providers. This was the case in France with the Exeltium consortium, but it is also the case in Germany. Whether this involves preferential tariffs granted by a State-owned company (historical supplier) or a tax exemption or reduction, these measures have been analyzed by the Directorate for Competition. To date, these special rates have not encountered systematic opposition, but the process of deregulating Europe's electricity market and the new regulation on aid for the environment and energy – scheduled for the first half of 2014 – should not necessarily work in their favour. It is still the case that the best

support for industries that intensively consume energy, and not just electricity, remains the appreciation of the euro vis-à-vis the dollar, which is reducing the cost of imported energy, even though this is rather debilitating for exporters, as our Minister frequently points out. In addition, the cost of energy is an incentive (among others) to invest in energy-saving technologies. This perfectly illustrates the economic adage that any choice (aid) is also a renunciation (of another use of resources). The competitiveness of energy-intensive industries or a policy to reduce fossil fuels – this is the choice at the heart of the European Commission's decisions.

Control on aid is aimed at a different type of objective

It is because the control of State aid is consistent with European objectives (Lisbon Objectives, 2008 Climate and Energy Package, and now the 2030 Climate and Energy Framework) that it might be possible to develop a coherent European economic policy.

The regulatory system and the jurisprudence on public aid have proven to be relatively flexible and adaptive. This should not prevent us from discussing and commenting on the decisions of the Directorate General for Competition, particular as competition policy does not need to resemble a doctrine to be effective. It does, of course, entail some loss of economic sovereignty. But it needs to be recognized that control over aid is a major element in European economic cohesion, in the convergence of economic levels, and most of all in democracy. This reporting requirement generates valuable information for citizens about the use of public funds. Furthermore, it facilitates the readability of industrial policy and more generally of public aid from States, which citizens and the media have an interest in assessing on the eve of the upcoming European elections.

The energy companies: Green is making them see red

By [Sarah Guillou](#) and [Evens Salies](#) [1]

Does the common energy market unduly favour renewable energy sources (“renewables”)? This is the opinion of the [nine energy companies that appeared before the European Parliament](#) in September. According to them, meeting the target of having 20% of final energy consumption in the EU come from renewable sources by 2020 would have a negative impact on the electric energy sector, and in particular could harm both the energy companies’ financial results and the security of the electricity supply. There is no denying that since the late 1990s the EU has conducted a very active policy promoting RES in this field. The European Commission (EC) has made numerous suggestions to the Member States about ways to meet the 20% target (see [Directive 2009/28/EC](#)), including guaranteed purchase prices for electricity produced from renewable energy sources, tax credits, etc. Moreover, in 2011 this set of measures has enabled the EU-27 to hit a level of 22% of electricity generated from renewables, hydroelectricity included ([Eurelectric, 2012](#)) [2].

How does this policy hurt the historical producers or threaten the security of the supply? Let’s look at a few stylized facts about the consumption and management of electricity production. Average consumption is lower at night (“base” period) than in the daytime when it experiences a peak or two (periods called “spikes”). As electricity is not storable, the least expensive way to meet the base-to-peak transition is to draw on power plants according to their “order of merit”. A producer using several sources of energy then calls on them in

order from the least flexible (slow start-up, low marginal cost) to the most flexible (fast start-up, high marginal cost). In theory, the stack is/was: nuclear-coal for the base period, nuclear-coal-gas for the peak period [3]. It is during peak demand, when the wholesale price can soar, that producers earn the most money. The production of RES plants is in turn contingent on the vagaries of the weather (“intermittent”): these plants produce only when the associated primary resource (wind, sun, etc.) is sufficient; they are then prioritized for meeting electricity consumption.

The integration of RES into the generation fleet changes the merit order. The stack above becomes wind-nuclear-coal for the base, and wind-nuclear-coal-gas at peak, with wind substituting for some uranium, coal and gas. Given that for RES plants the marginal cost of production is close to zero, their integration in the energy mix, however minimal, reduces the average price on the wholesale markets. As a result, with the integration of RES, fossil fuel plants are less well paid. As for the RES plants, they always enjoy a guaranteed purchase price (in France, 8.2 c€/kWh for wind and between 8 and 32 c€/kWh for solar, etc.) [4]. The loss in earnings is greatest during periods of peak demand. Producers have less incentive to invest in the construction of fossil fuel power plants, whose output is nevertheless needed during these periods. Hence the risk to the security of supply: with the gap between available capacity and peak demand potentially reduced, there is a greater risk that the real gap between output and consumption becomes negative.

One possible solution is the creation of a “market for capacity”. In this market, making the output capacity of a power plant available well in advance would be remunerated, even if there is no actual output. The nine energy companies considered this kind of market as interesting, insofar as they are equipped with gas power plants and / or are sellers of gas, which is what is demanded in peak periods. In France, the

[NOME Law](#) of 2010 provides for the establishment of such a market at the end of 2015.

It is also worth noting that since a substantial share of fossil fuel plants are not at the end of their physical life, the integration of RES is adding capacity to a European market for electricity that is already characterized by overcapacity. This is now being exacerbated by the economic crisis, which is hitting energy demand. This mainly concerns gas plants that already face stiff competition from coal-fired plants, which have become more profitable since the import of surplus US coal, which has been supplanted by shale gas. The excess supply is, however, helping to contain electricity prices.

In the end, the hearing involving the nine energy providers in the European Parliament reveals two major difficulties facing any energy transition policy. The first is the cost of adjusting to the new energy mix. The energy companies are, like these nine, complaining (rightly) that this cost is jeopardizing their profitability and that in order to cope some of them will be forced to close or even dismantle production sites ([Eon in Germany](#)). The consumers, for their part, are financing among other things the obligation to buy electricity – in France, through the contribution to the public electricity service ([700 million euros in 2010](#)). The cost of adjusting is inevitable and even necessary to the adjustment: it is because the providers have to bear an additional cost that they will change their energy portfolio. The second problem comes down to a single question: how can support for RES be reconciled with a secure supply? While energy policy is contributing to a genuine improvement in air quality, it still seems ineffective in managing the security of supply, which is nevertheless a public good.

The EC is moving toward cooperative solutions. As in the case of the coordinated development of the interconnection of the national transport networks, led by the network managers, it is considering the feasibility of a [common market for the](#)

[exchange of electricity generation capacity](#). The EC would also like the Member states to coordinate the setting of guaranteed purchase prices. These rates could in practice create a windfall, especially for equipment makers (see [Guillou, S., 2013, Le crépuscule de l'industrie solaire, idole des gouvernements, Note de l'OFCE No. 32](#)) [Guillou, S., 2013, "The twilight of the solar industry, the darling of governments", OFCE Note 32]. What remains is to find ways to facilitate the coordinated management of the security of the EU's electricity supply, while making room for RES. The hearing of the energy providers in the European Parliament should lead to a more general consideration of the security of supplies in the EU with respect to all sources of energy.

[1] We would like to thank Dominique Finon, Céline Hiroux and Sandrine Selosse. Any error is, however, our own responsibility.

[2] The figure of 20% covers a number of sectors, beyond just the electrical energy sector.

[3] This principle was especially true before the liberalization of the wholesale markets, at a time when a vertically integrated producer decided which power plants to start to meet national demand.

[4] Guaranteed purchase prices were introduced so that the technology for producing electricity from renewable energy sources, which was not yet mature, was not put at a disadvantage.

Solar power is cooling Sino-European relations

By [Sarah Guillou](#)

In early July 2013, yet another company in the solar industry, Conergy, declared bankruptcy. The departure of this German company, established in 1998, marks the end of a cycle for the solar industry. This bankruptcy adds to a series of closures and liquidations across every country that have highlighted the rising trade tension over solar panels between the United States and Europe on the one hand and China on the other (see [OFCE Note 32: "The twilight of the solar industry, the darling of governments", from 6 September 2013](#)). As this tension peaked, in May, the European Commission decided to threaten China with a customs duty of over 45%. A trade war has thus concluded a decade of government involvement, as if this were a matter of saving the public money invested. But what it signifies most is the industrial failure of a non-cooperative global energy policy.

A promising, but chaotic, industrial start

Government worship of solar power, which took off in the early 2000s on both sides of the Atlantic, but also in the emerging economies (and especially China), has undoubtedly propelled solar energy to the forefront of renewable energies, but it has also fueled a number of market imbalances and serious industrial turmoil. With the price of oil rising constantly from 2000 to 2010, the need to accelerate the energy transition along with the commitments of the Kyoto Protocol led governments to support the production of renewable energy, with solar energy being the great beneficiary. The global industry experienced a tremendous boom, with growth of more than 600% from 2004 to 2011.

Public support, together with private investment, sparked massive market entries that destabilized the price of the main resource, silicon, the amount of which could not adjust as quickly. Fluctuations in the price of silicon due to imbalances in the market for photovoltaic panels created great instability in its supply, which was exacerbated by technological uncertainties facing companies trying to innovate in the field (such as the American firm, Solyndra, which finally filed for bankruptcy in 2013).

The trade war for a star

The intensification of Chinese domination of the industry has in turn affected the competitive uncertainty. China is now the world's largest market, and the involvement of the Chinese government in the industry's development is unparalleled. Today ranked third in terms of installed capacity (after Germany and Italy), China is also the world's largest producer of solar panels. It now accounts for half of the world's output of panels, whereas it produced only 6% in 2005. Chinese producers have received massive support from central and local government, which has also helped to saturate the Chinese market.

In addition to this public support, China also enjoys a distinct advantage in labour costs, which makes the business of manufacturing solar panels very competitive – the more technologically-intensive steps are upstream in the industry, at the level of the crystallization and slicing of the silicon. In addition to this competitive advantage, Chinese producers have also been accused of dumping, *i.e.* selling below the cost of production. Their competitiveness is thus unrivalled ... but increasingly under challenge. In October 2012, the United States decided to impose tariffs on imports of Chinese cells and modules, with anti-dumping duties varying from 18.3% to 250% (for new entrants), depending on the company.

Europe, which imports many more photovoltaic components from China than does the United States, initially opted for the approach of imposing anti-dumping duties, and launched an investigation in September 2012, triggered by a complaint from EU ProSun – a trade association of 25 European manufacturers of solar modules – on imports of panels and modules from China. In June 2013, the Commission finally decided to impose a customs duty of 11.2% on solar panels, while threatening to push this up to 47% if China does not change its position on pricing by August 6th.

The Empire counter-attacks

The counter-attack was not long in coming: in July 2013, China decided to apply anti-dumping duties on imports of silicon from the United States and South Korea. A serious threat is also hanging over the head of Europe's firms, as China is one of the largest markets for the continent's silicon exporters (870 million dollars in 2011).

This trade war essentially reflects a defensive position taken by China's industrial rivals in the face of a support policy that they consider disproportionate and unfair, during a period when China has been nibbling away at the industrial jobs of its competitors for ten years. But one could question the industrial logic underlying this trade policy.

First, this policy contradicts previous government policies promoting solar energy. The trade-off between climate change goals (developing low-cost energy transition tools) and the profitability and sustainability of the industry seems to have been decided in favour of the latter. Second, while this now provides producers direct support, it could handicap installers, engineering firms involved in pre-installation work, and manufacturers of panels using Chinese components. Finally, this is leading to serious exposure to potentially costly trade retaliation, which could mean exporters of polycrystalline silicon or machinery used in the solar industry,

or other industries such as wine or luxury cars.

Out of fear of a probable lack of approval by a majority of EU members or in order to “slay other dragons” more freely (the coming telecoms conflict), the [agreement reached in late July](#) by Commissioner Karel De Gucht and approved by the European Commission on August 2nd should not lead to trade retaliation nor disturb market supply too much. It commits nearly 90 Chinese producers not to sell below 56 cents per watt of power. This price is a compromise between what is considered consistent with the cost of Chinese production and the current average price on the market on the one hand and what is acceptable to European competitors on the other.

Finally, over the decade from 2002 to 2012 the solar photovoltaic industry has undeniably become global and highly competitive, despite clear-cut government interventionism. In reality, even the governments competed. Now they are settling their disputes by playing with international trade rules. Costly state support has propelled the growth of the sector beyond all expectations: by creating excess supply, the price of solar panels dropped sharply and accelerated the incredible boom in solar power. In 2013, solar power represented more than 2% of the electricity consumed in the European Union. This breakthrough by solar energy was accompanied by numerous entries and exits from the market, without so far giving rise to a significant business concentration. The choice of a public pull-back in favour of trade policy represents a new page in the history of this industry, which is no longer being driven so much by energy policy or even by industrial policy. There is obviously no dusk without a future dawn. But tomorrow's dawn will certainly see the rise of a different “solar”. Europe's future in the manufacture of solar panels will involve technological innovation aimed not so much at reducing costs as at improving performance.