Gabinete de Estratégia e Estudos
Ministério da Economia e do Emprego

Ficha de Competitividade December 2011 **INTERNATIONALIZATION**

As Fichas de Competitividade visam ligar a situação da Economia Portuguesa nas várias dimensões da sua competitividade com a actuação do Estado e compará-la com países que tenham um enquadramento institucional similar e um nível de desenvolvimento aproximado. Cada ficha fundamenta a intervenção do Estado, apresenta as principais medidas de política pública implementadas em Portugal nos anos últimos anos, e utiliza diversos indicadores e rankings internacionais para uma comparação com outros países.

The Internationalization of the Portuguese Economy

1 – Defining internationalization

Internationalization is the process whereby national firms get involved in international markets, either by investing abroad, exporting, importing, or engaging in international technical cooperation and subcontracting (European Commission, 2009).

From these four forms of internationalization, two must be highlighted, due to their role in the economic competitiveness of Portugal: exporting and outward Foreign Direct Investment (FDI). Exports have several macroeconomic benefits: they contribute to the external balance, foster economic growth, and boost Research and Development (R&D) activities. Furthermore, a dynamic export sector means that domestic firms are able to compete in international markets, signaling a high level of competitiveness. From a microeconomic perspective, exporting allows firms to expand and increase their size. Moreover, a firm that competes with others in international markets is usually more efficient and more innovative, and as a result, achieves lower production costs and manufactures higher quality goods or sells higher quality services.

Outward FDI may improve the efficiency of domestic firms – they may gain international expertize and learn new business practices – and boost national exports – firms may gain access to new markets and costumers. However, in some cases outward FDI may substitute exports, leading to lower employment and production. Thus, some carefulness is warranted when analyzing the benefits from outward FDI, and when identifying which FDI investments should be supported by policy measures.

Importing and engaging in international technical cooperation and subcontracting are also important forms of internationalization. For instance, some firms start international activities by importing, in order to get acquainted with the bureaucracies of international trade, and only thereafter engage in exporting (European Commission, 2009). For other firms, importing is crucial to access cheaper raw materials and intermediate goods, or even other inputs that are not available within borders. The use of patents, licenses or trademarks, transfer of know-how, and *royalties* allow firms to expand the technological frontier, to sell new technology and know-how to foreign companies, or to expand their activities abroad without engaging in FDI.

Although these two latter forms of internationalization – importing and engaging in international technical cooperation and subcontracting – are important microeconomic sources of competitiveness, their scope is more limited, and their macroeconomic effects less visible. Moreover, there is no clear theoretical argument that rationalizes any extensive government intervention in these areas. Nevertheless, government can promote a sound and stable business environment, which eliminates bureaucracy and facilitates international transactions. Therefore, these forms of internationalization will not be directly addressed herein.

This article is organized as follows. In Section 2, we provide a rational behind public policies for internationalization, in the areas of exports and outward FDI. In Section 3 we present several policy measures that have been recently adopted in Portugal in these areas. In Section 4 we access the Portuguese export performance and describe the recent trends in outward FDI. Section 5 concludes.

2 – Why to support public policies for internationalization?

2.1 – The benefits of international trade

The most influent trade theory dates back to David Ricardo (1817), who has proposed the well-known law of comparative advantages to explain how two countries can benefit from trade. According to this theory, each country should direct its production towards the goods with lower relative costs. In this way, each economy could exploit the gains from trade, and attain a higher level of consumption relative to the autarkic outcome. This theory was later extended to the many-country and many-goods cases by McKenzie (1954, 1956) and Jones (1961), and to the case of a continuum of goods by Dornbusch et al. (1977). Recently, Shiozawa (2007) incorporated intermediate input trade in the many-country, many-goods Ricardian trade theory.[1]

[1] This latter theory is known as the Ricardo-Sraffa trade theory.

Another well-known theory in international trade is due to Heckscher and Ohlin (Heckscher, 1919; Ohlin, 1933). These authors stressed the relevance of factor endowments in the patterns of international trade, arguing that countries should produce and export goods which require abundant resources, and import goods which require scarce resources. The theory is usually applied to explain inter-industry trade between countries with different characteristics and levels of development.

The New Trade theory (see, for instance, Krugman, 1979 and Helpman and Krugman, 1985) relaxed the perfect competition setting and the constant returns to scale technology that characterized previous models, and was applied to explain intra-industry trade among developed economies. Krugman (1991) further developed this approach to new economic geography models in an attempt to explain the spatial distribution of economic activity. Moreover, this theory formally showed for the first time an idea that dates back at least to the 19th century: protectionist measures increase the size of "infant industries" with increasing returns to scale, allowing them to gain scale to compete in world markets with significant cost advantages relative to international competitors.[2] This is probably the only theory which provides a clear argument in favor of protectionist measures in international trade.

All in all, except for the case of infant industries with significant increasing returns to scale, these theories suggest that international trade benefits all the trading partners, and improves welfare upon the autarkic outcome. *Per se*, they rationalize the idea that imposing tariffs or quotas, or other restrictive measures on trade, decreases welfare. Hence, governments should seek to eliminate all restrictions on trade, and reduce the bureaucracy associated with cross-border trade, in order to diminish the costs firms incur when trading across borders. However, the overall benefit is more evident with transfers to investors and workers in importing sectors, which are more likely to be negatively affected by trade liberalization.

2.2 – Rationalizing public policies aimed at supporting national exports

A firm engages in exporting to enter new markets and to enlarge the set of clients. This international expansion leads to an increase in the firm's turnover and size, possibly allowing it to exploit economies of scale. Consequently, the firm should attain higher levels of efficiency, and lower production costs. Meanwhile, international competition may also increase the pressure to innovate, since only the most innovative firms will be able to gain new customers and to fight back innovative products from other international corporations. Hence, any process of internationalization may be advantageous not only for the firm and the citizens of the destination country, but also for the home country.

Besides these advantages, a dynamic export sector brings several macroeconomic benefits. First, exports may contribute to economic growth – a possibility known as the export-led growth hypothesis. The association between exports and growth has been studied, *inter alia,* by Esfahani (1991) and Kavoussi, (1984). Lewer and Van den Berg (2003) survey the literature, and conclude that, in most of empirical studies, an increase in exports by 1 percentage point has a 20 basis points impact on economic growth.

However, some of these studies can be questioned on the grounds of causality: is there a causality effect between exports and growth, or is it growth that boosts exports? In this respect, evidence is mixed, and depends on the countries being scrutinized. Oxley (1993) examines the export-led growth hypothesis for Portugal, for the 1895-1985 period, and rejects it in favor of reverse causality. Ahmad (2001) employs several causality tests and also finds week evidence in favor for the export-led growth hypothesis. Shan and Sun (1998a) find bidirectional causality between exports and real industrial output in China in the 1987-1996 period, but in another study (Shan and Sun, 1998b), the same authors find that causality runs from manufacturing growth to exports growth in Australia. Using a panel of countries, Chao and Buongiorno (2002), estimate that the averages multipliers from exports to production (around 1.2-1.4) are much larger than the average multipliers from production to exports (around 0.20-0.25).[3]

Second, a dynamic export sector may reduce external imbalances and improve the current account deficit, as the amount a country borrows from abroad is equivalent to the symmetric of the current and capital account. Intuitively, when a country incurs in a trade deficit, an increase in net exports narrows the gap between GDP and internal demand, consequently reducing the need to finance domestic expenditures with foreign resources. In other words, net borrowing from abroad decreases. This has a side effect, however: if there is no increase in national savings, the gap between GDP and internal demand will be reduced *via* a decrease in investment, which may compromise economic growth. This is a well-known consequence of the savings-investment identity.

[2] Recall that, when a technology exhibits increasing returns to scale, the average cost is decreasing in the quantity produced.

[3] Further support for the export-led growth hypothesis can be found in Salvatore and Hatcher (1991), Fosu (1990) and Chow (1987), for instance. Further evidence against the export-led growth hypothesis holds in the articles of Ahmad and Harnhirum (1995), Yaghmaian (1994) and Ahmad and Kwan (1991).

Third, exports may further efficiency and productivity, as only the most efficient firms are able to compete in international markets. Kimura and Kiyota (2006), for instance, argue that the most efficient firms tend to export more, and Girma et al. (2004), using a panel of manufacturing firms in the United Kingdom, find that exporting firms are in fact more productive.

Fourth, higher exports may be associated with higher R&D investments. The link between exports and R&D is well explained in Golovko and Valentini (2011), who argue that innovation and exports positively reinforce each other in a dynamic virtuous circle. According to these authors, firms participating in export markets benefit from a learning process (contacts with different cultures, tastes, products, business practices, among others), which can enhance innovation. Furthermore, through innovation, firms can enter in new geographical markets with novel and better products. This complementarity between exports and innovation is confirmed empirically in the same article, for Spanish manufacturing firms over the 1990-1999 period. Ito and Pucik (1993) find a positive association at the micro level between export sales and both individual and average industry R&D intensity, for Japanese manufacturing firms.

Aw et al. (2007) link exports, R&D investments and future productivity by establishing a positive and significant interaction between these three concepts for the Taiwanese electronics industry.[4] These interactions have obvious repercussions at the macro level: they establish an indirect link between exports and economic growth, working through R&D;[5] they associate exports to the development of novel and better products that may improve households' welfare, since the same products that are exported are also sold domestically; and they link exports to higher production efficiency and lower production costs.

These four classes of macroeconomic benefits induced by exports, *viz.* increase in economic growth, decrease in net borrowing from abroad, increase in efficiency and productivity, and increase in R&D, may in part justify some national programs aimed at exports promotion. For instance, if too little R&D occurs in equilibrium, integrating R&D promotion measures with export promotion measures may be an efficient way to boost innovation and economic growth.[6] Export promotion measures may also attempt to correct for potential spillover effects that the increase in productivity and efficiency associated to a firm's exports may have over other domestic firms. This occurs if other domestic firms also benefit from the export experience of a given firm in the same cluster, for instance, by observing how that firm performs in international markets and the type of products it sells in those markets, and learning from that process. However there are other reasons – of microeconomic nature – that justify a more complete set of export promotion measures. We turn to these now.

A Small and Medium Enterprise (SME) may not have the necessary resources spend in the internationalization process, even if the prospects are promising. Selling the products abroad for the first time requires an intensive research on the potential markets and clients to whom to sell, knowledge on potential competitors, a large investment on product promotion (going to international fairs, for instance) and an intensive search activity to find potential strategic partners and supply chains, among other activities. Most of these activities constitute a large entry cost, which may deter SMEs from exporting to other markets.

As a potential solution for this problem, suppose that several competing SMEs belonging to the same cluster want to sell their products abroad, and assume for a moment that cooperation among them is possible. Since most of the activities that precede exporting, such as market prospecting, would overlap across similar SMEs, it would only be necessary to perform these activities once. The costs could then be divided across firms, which would reduce the individual costs of entering in international markets. However, this type of cooperation may not be possible, as it could lead to the well-known prisoner's dilemma, in which each firm would agree to cooperate at first, but would later deviate, benefiting from the common activities at a lower cost. In equilibrium no firm would cooperate. Even considering a repeated game setting and allowing for *tit-for-tat* strategies,[7] cooperation would remain highly unstable, since the large number of players and their

[4] Further evidence of this relationship is provided by Sterlacchini (1999) and Barrios et al. (2003). The former author finds that innovative activities, especially those related to design, engineering and pre-production developments, exerted a positive and significant impact on the share of exports on sales for Italian manufacturing firms. The latter article finds that own R&D activity is an important determinant of export activity, using a firm level panel data for Spain for the 1990-1998 period.

[5] According to the literature, R&D is in fact the main source of economic growth. Highly influential articles in this subject include Young (1998), Jones (1995), Aghion and Howitt (1992), and Romer (1990). Barro and Sala-i-Martin (2004) and Aghion and Howitt (1998) are two classical textbooks where the role of R&D on economic growth is well explained and modeled. Nunes and Pinheiro-Alves (2010a) provide an analysis of the role of innovation on Portuguese competitiveness.

[6] There is an extensive literature on the inadequacy of the equilibrium level of R&D. Several earlier papers argued that a decentralized economy undertakes too little R&D (e.g. Jones and Williams, 1998), but more recent studies also consider the hypothesis of excessive R&D in equilibrium. According to Jones and Williams (2000), two distortions may promote underinvestment in R&D in equilibrium – the surplus appropriability problem and knowledge spillovers – whereas two other distortions – the well-known creative destruction and the duplication of externalities – may lead to overinvestment in R&D. The final balance of these four effects is unclear.

[7] In *tit-for-tat* strategies, each agent cooperates as long as all other agents also cooperate, and retaliates when at least one of the other agents deviates from the pre-agreed actions.

possible distinct sizes would difficult the detection of deviations and the coordination of punishment strategies. Notice, however, that the extent to which cooperation is possible or not may depend on whether firms are competing directly for the same costumers. For instance, if a set of firms sell products that are complements of one another, they may in fact be better off cooperating, as the benefits of deviating from a pre-defined cooperation strategy would be significantly lower.

Furthermore, there are also important positive externalities associated with the gathering of foreign market information, such as consumer preferences, business opportunities and potential competitors (Lederman et al., 2010). Often, exporters have to make considerable investments in an attempt to open foreign markets, cultivate contracts and establish distribution chains, which can thereafter be used by rivals at a lower cost (Hausmann and Rodrik, 2003). These positive externalities lead to a lower level of internationalization than the socially optimal outcome.

These coordination and market failures have been put forward as the main justification for the creation of export promotion agencies.[8] These agencies aim at increasing a country's exports, and have four main objectives: to construct and improve the country's image in external markets (through advertising or promotional events, for instance); to support firms during the internationalization process (through training, technical assistance, logistics, among others); to assist firms in marketing activities (such as trade fairs and exporter missions); and to perform market research and publications (*i.e.* make market surveys, collect information on export markets or build contact databases). In Portugal, this assistance is provided by the AICEP (*Agência para o Investimento e Comércio Externo de Portugal*).

SMEs are highly dependent on borrowed capital to finance export activities. However, there are several reasons why the relationship between lenders (banks) and borrowers (firms) may result in inefficient outcomes. The most well-known is credit rationing, which can be justified on two different grounds. The first is based on the bank's difficulties to finance loans – an issue that is particularly relevant in Portugal nowadays, due to the turmoil in sovereign debt markets that increased the cost of financing of the Portuguese state, and consequently of Portuguese banks. A large fraction of a bank's assets is composed by sovereign debt, which is often used as collateral when a bank borrows money from other institutions in the money market or from the European Central Bank through repurchase agreements or similar instruments. Hence, as the value of sovereign debt diminishes, the access of banks to foreign funds becomes more difficult. This sequence of events lead banks to lower the amount of credit granted to private agents, and to increase the cost of that credit, through higher spreads and commissions. These credit restrictions are expected to deteriorate even further in the near future, due to an expected negative economic growth, which increases the overall risk of loans.

The second reason that justifies credit rationing is based on a theoretical argument due to Stiglitz and Weiss (1981). These authors argue that, under some circumstances, it may not be profitable for banks to raise the interest rate or collateral requirements to the market clearing level, as this could lead to either an adverse selection problem, in which only the riskiest projects are financed, or to a moral hazard problem, in which the borrowers do not act in the best interest of the lenders. As a result, banks may deny loans to borrowers who are observationally indistinguishable from those who received loans.

The argument goes as follows. Different borrowers have different probabilities of repaying their loans, but as this is private information, it may be difficult for banks to separate the "good" loans from "bad" ones. The alternative is to charge an interest rate according to the average risk. However, in this case, the least risky firms may not find worthwhile to ask for credit, and the banks may find themselves demand-constrained of "good" borrowers. As banks start losing these "good" clients, average risk increases, and so must the risk premium. The least risky clients that were still borrowing money from the bank may not find worthwhile to do so anymore, and the cycle repeats itself. Eventually, the financial market may enter a ruinous cycle where only the riskiest loans remain, and the bank expected profits are low. In this situation, credit rationing, combined with an interest rate below market-clearing that attracts low-risk clients, is just the equilibrium response of profit maximizing banks to the problem of self-selection – even if there were individuals willing to pay a higher interest rate for a loan, increasing the interest rate to a higher level would only attract the riskiest firms and consequently decrease the bank's expected profits.

The bank could, however, use a variety of screening devices – among which the interest rate is a prime candidate – to separate the "good" clients from the "bad" ones. For instance, the bank could design a menu of contracts such that the riskiest firms would select the contracts with higher interest rates. The problem with this approach is that, when the interest rate changes, the behavior of the borrower is also likely to change, as higher interest rates will induce firms to undertake projects with a lower probability of success but with higher payoffs in the bad state of the world. This is a typical case of moral hazard, in which the agent does not behave in the best interest of the principal, and the

[8] This type of support is allowed by the European Commission (Regulation N. 800/2008).

principal does not have the tools to monitor the agent's behavior. In this setup, credit rationing is simply the equilibrium response to the ineffectiveness of screening devices.[9]

Another instance where one can find similar market failures is in the insurance market. When a firm exports to a new destination where the political risk is high, or engages in a transaction with a new international client whose reliability is unknown, it may want to insure against the risk of non-payment. However, under some circumstances, the amount of risk incurred cannot be completely assessed by the insurance companies, since it is private information. This would lead to an adverse selection problem, along the same lines described above. Furthermore, some firms may have incentives to incur in higher risks after buying insurance, since they do that bear the full cost of their action if the bad state of the world occurs. For instance, once a firm is fully insured, it may want to sell its products to riskier clients, who might pay a higher price. In the good state of the world (*i.e*. if the client pays), the firm's revenue is higher, but in the bad state of the world (*i.e.* if the client does not pay), the loss is covered by insurance.

The restrictions to credit and insurance are two key factors that may prevent SMEs from exporting,[10] or at least affect their internationalization decisions. However, the government cannot solve the adverse selection and moral hazard problems that lie behind these restrictions, since it has, at most, the same information that is available to banks and insurance companies, and so it cannot promote a better allocation. What governments usually do to minimize the effects caused by these restrictions is to share the risk with banks and insurance companies. This transfers the economic effects of adverse selection and moral hazard to the government, therefore eliminating the sources of credit and insurance restrictions. The government may also finance a fraction of the interest paid by firms, so that these can assess credit at lower interest rates.

These measures can be questioned on the grounds of economic efficiency, as they do not solve any market failure; instead, they transfer the risks associated to those failures from banks and insurance companies to the government, thus eliminating the sources of credit or insurance restrictions. Furthermore, the guarantees provided by the government have to be financed by taxes, and it is not clear whether the benefit from the increase in exports resulting from the reduction in credit and insurance restrictions overcomes the overall tax burden, and the associated deadweight loss. For instance, those measures might pay back themselves if the increase in exports leads to higher profits, and consequently to a higher corporate tax income, or if exports are associated to more innovation and better products, positively affecting the welfare of domestic households. However, to our knowledge, there are not many studies that attempt to assess the efficiency of export promotion measures. One exception is Lederman et al. (2010), who estimate that each 1% increase in the budget of export promotion agencies leads to a 9-10% increase in the country's exports.

A government may also decide to support exporting firms because all other governments are doing so. According to this prisoner's dilemma argument, if all other countries have export promotion measures, the best response of a given country may also be to implement the same export promotion measures, otherwise domestic firms would not be able to compete with other international firms, neither domestically nor abroad. Obviously, the effects of export promotion measures in the different countries tend to cancel each other out, so that only the expenditures associated to those measures remains. A cooperative strategy, in which no country supports exports, would be associated to a higher payoff; however no country has incentives to unilaterally change its strategy. Therefore, the widely spread set of export promotion measures across countries may as well be a Nash equilibrium.

Finally, the government may also promote exports by decreasing the bureaucracy associated to cross border trade. This may consist, for instance, in swifter value added tax deductions, or in simpler procedures to obtain export certificates. These types of measures decrease the costs of exporting, therefore contributing to their increase.[11] There seems to be also a positive association between exports and inward FDI, as FDI inflows may have an important impact on the efficiency of the export sector, as well as technology diffusion (*e.g.* Barrell and Pain, 1997). Hence, an overall sound business environment, which reduces the costs associated with bureaucracy and the administrative burden, and which promotes labor market flexibility and fosters the efficiency of the judicial system, is also an important factor to boost national exports – it affects exports not only directly, by increasing the competitiveness of domestic firms, but also indirectly, through an increase in foreign investment originating from multinational corporations.[12]

[9] However, Bester (1985) shows that no credit rationing will occur in equilibrium if banks compete by choosing collateral requirements and the rate of interest to screen investors' riskiness simultaneously.

[10] Credit restrictions also affect investment decisions, and hence they have a much larger scope.

[11] The economic benefits of a favorable business environment and a description of related policy measures recently adopted in Portugal can be found in Nunes and Pinheiro-Alves (2010b).

[12] The link between inward FDI and exports is explored in Júlio and Nunes (2010), and for that reason it is not addressed in more detail herein.

It should be noted however that, while direct government intervention may correct, or at least attenuate, the aforementioned market failures, it does not occur without creating its own failures. From the traditional government failures that are pointed out in the literature, three should be highlighted here. First, there is not a direct link between performance and the government officials' payoff (or, in this case, the payoff of the employees of export promotion agencies), and so these officials may not have the incentives to exert the necessary amount of effort in their tasks. Second, since the government finances these measures through taxes, it may not have the correct incentives to implement a rigorous cost-benefit analysis to evaluate their effectiveness and efficiency. Finally, the government may not have more information than the private sector, and hence it does not necessarily achieve a better outcome.

2.3 – Rationalizing public policies aimed at supporting outward FDI

There are several reasons for a firm to invest abroad. FDI may allow a multinational firm to access new costumers and new markets, cheap and qualified labor, natural resources and strategic assets, and better regulations and business practices (*e.g.* Dunning, 2008). The locational advantages brought in by the host country, such as market size, trade costs, or differences in input prices, play a key role here. FDI also allows a firm to expand its activities abroad without giving a foreign company a license, so that it retains its intellectual property.[13] However, firms also have to incur in several costs when investing abroad, *viz.* communication costs, training costs for personal, costs created by language barriers and by unfamiliarity with local business and government practices (for example, regulations, tax laws, property rights and cultural differences). A third reason, very relevant for multinationals, concerns the internalization of corporate functions, where the transaction costs are deemed to be lower within an economic group than through market agents (Williamson, 1975; Dunning, 1979). Obviously, a rational corporation engages in FDI if and only if the associated benefits outweigh the costs.

Outward FDI and exports are sometimes seen as substitutes. For example, the well-known model of Helpman et al. (2004) considers that firms rationally decide whether to serve foreign customers, and whether they should do so through exports or through outward FDI. They conclude that only the efficient firms choose to serve foreign customers, and only the most efficient ones do so through outward FDI. However, several empirical studies have shown that outward FDI and exports can also be complements rather than substitutes (*e.g.* Marchant et al., 2002; Pfaffermayr, 1994). FDI and exports will be substitutes if firms substitute domestic for foreign production, and will be complements if firms use outward FDI to support national exports (for instance by investing in a supply chain to distribute the domestically produced goods more efficiently or by establishing local offices to find new costumers and to provide after-sales support). This complementarity may also arise when a firm vertically expands its productive activities abroad, and exports of the home country are used as intermediate goods by foreign affiliates. Consequently, outward FDI may reduce the trade deficit.

Some studies also suggest that FDI may affect economic growth in the source country. One example is Stevens and Lipsey (1992), who confirm empirically that outward FDI reduces the likelihood of concurrent investment at home, leading to the substitution of foreign for domestic output. On the opposite direction, Herzer (2008,2010) finds that outward FDI may substitute domestic for foreign output. The argument goes as follows. Outward FDI allows firms to enter new markets, to import intermediate goods at lower prices and to access foreign technology and expertise, which can be transferred back to the home country. Multinationals may also be exposed to better business practices and are usually more productive than firms focused primarily on the domestic market, since, by combining domestic production with foreign production, they can produce at lower costs. Besides the direct impact on the source firm, these effects may have beneficial spillovers on other firms consequently boosting competitiveness and stimulating domestic output in the source country (*e.g.* Desai et al., 2005).[14] Outward FDI may also contribute directly to the current account balance, through an increase in inward earnings.

From the above, we can identify two main reasons that justify the existence of public support measures for outward FDI. First, the private level of outward FDI tends to be inferior to the optimum level, as it may have spillover effects over other domestic firms, thus boosting economic growth. This calls for the support of foreign investment projects which present an important effect on the development of the national economy. And second, foreign investments may be limited by credit restrictions or inefficiencies in the insurance market, along the same lines as in the previous subsection. In fact, although firms are not subject to credit risks when investing abroad, they might face large political risks, especially when investing with autocratic regimes or week and unstable democracies.

[13] This could happen if the firm is reluctant to reveal the details of its product or production process, or if there is the risk that the foreign company produces lower quality goods, therefore reducing the value of the multinational's trademark.

[14] Herzer (2008) also finds that the long-run relationship between outward FDI and domestic output is bidirectional, suggesting that increased outward FDI is both a cause and a consequence of increased domestic output.

3 – Main policy measures to support internationalization

In recent years, Portugal has implemented a rich set of public policies, aimed at improving efficiency and attenuating the effects of the aforementioned market failures. Recall that credit restrictions may prevent SMEs from accessing credit at competitive rates, or even from accessing credit at all. Additionally, asymmetries of information and moral hazard issues may undermine the access to insurance at competitive rates. These are crucial problems, not only from a microeconomic perspective, but also from a macroeconomic viewpoint, since they may prevent SMEs from internationalizing, consequently affecting economic growth, the level of R&D, and the external balance. With the purpose of lessening these hindrances, the Portuguese government created the *export invest* program, which is simultaneously a credit line and an insurance line, specifically directed to exporting firms with long production and invoicing timeframes. Exporting firms have also available several insurance lines (*Linhas de apoio ao crédito comercial das PME através de seguros de crédito*) that cover credit risks and political risks in exporting activities.

The link between R&D and exports is explored in several policy measures – e.g. *Sistema de Incentivos à Investigação e Desenvolvimento Tecnológico nas Empresas, Sistema de Incentivos à Inovação, Sistema de Incentivos à Qualificação e Internacionalização de PME*. Through these measures, the government can promote external competitiveness, by encouraging and supporting innovative projects that lower the production costs or enable the firms to develop new and better products or improve the existing ones. Simultaneously, by fostering the access to foreign markets, these measures may facilitate the exploitation of scale economies, which are particularly relevant in intensive R&D industries. Finally, domestic households may also benefit from those R&D activities.

The government also supports venture capital, in order support investment projects and to promote exports from early-stage, high-potential and high-risk companies with a huge growth potential. These companies may have large difficulties in accessing private capital, but their growth potential and the positive externalities they might have over other domestic companies in particular and the national economy in general (for instance, through the development of new and better products) are clear indicators that any private allocation is inefficient. The support mechanism for funding access and for risk sharing in innovation (*SAFPRI*), the support fund for innovation (*Finova*), the *AICEP Capital Global* and the InovCapital are some examples of venture capital measures. To aid the tourism sector – the most important service exported in Portugal – there is the *Turismo Capital,* which allows the government to take part in the capital of tourism-related businesses.

The high costs of entry in international markets, jointly with the externalities associated with the gathering of information that precedes the internationalization process, are addressed through local export agencies (*Lojas de exportação*). These agencies aid firms throughout the internationalization process, collecting and sharing information on destination markets and potential business partners, and providing technical assistance and information on public support measures directed for internationalization.

In order to ease the bureaucratic burden of exporting companies, the Portuguese government created recently the program *Simplex exportações,* which allows firms to access more services, in a quicker and simpler fashion. The most important services provided include swifter VAT deductions, removal of trade barriers, and easier exports of products subject to excise taxes. The promotion of foreign investments in projects with recognized beneficial effects on the domestic economy is achieved through tax benefits, such as corporate tax deductions. There are also insurance lines that to cover the political risks associated to foreign investments.

4 – Assessing Portuguese internationalization: main economic indicators

In this section, we assess the recent Portuguese internationalization performance. All tables and figures cited herein are relegated to the appendix.

4.1 – Export performance

Between 2000 and 2010, Portuguese exports grew at a yearly rate of 3.9%. This value is, to a great extent, explained by the performance of the export sector in the second half of the decade: between 2005 and 2010, Portuguese exports grew at a yearly rate around 4.6%, against 3.2% between 2000 and 2005. Services had a key role in this recent trend: in 2010, they accounted for 32.3% of total exports, against 26.5% in 2000 (Table 1).

This performance led to an increase in the ratio of total exports to GDP in the second half of the decade. Between 2005 and 2008, exports increased from around 28% to 33% of GDP. The worldwide economic and financial crisis led to an abrupt decrease of exports in 2009, but in 2010 they recovered to 2006 levels (Figure 1).

Between 2005 and 2009, the Portuguese market share (in the trade of goods) fell at a yearly average rate of 1.1%, which compares with 1.8% between 2001 and 2005 (Figure 2). This can be partially explained by the large growth rate of some developing countries, mainly the BRICs, which have been gaining market share to most developed countries; in fact, between 2005 and 2009, all EU15 except the Netherlands lost market shares. The change in the Portuguese market share in this period is to a great extent explained by the concentration of Portuguese exports in slow growing markets (geographic specialization effect), which clearly overcame the gains resulting from the increase in the competitiveness of Portuguese exports (competitiveness effect) and from the dynamism in the world demand of exported products (product specialization effect). The adaptation effect, which measures a country's ability to adjust its exports to changes in the world demand, has also contributed negatively to the relative change in market share in this period.[15]

During the second half of 2000s, the service sector reinforced its position as the main driving force of Portuguese exports. Services explained almost 50% (2.2 percentage points) of the yearly average growth rate of 4.6% in the 2005-2010 period, which compares with 37.5% (1.2 percentage points) of the yearly average growth rate of 3.2% in the 2000-2005 period. In the whole decade, the contribution of services to the exports growth rate was around 43.5%. The remaining change in Portuguese exports in the decade is mostly explained by food products, chemicals and mineral and metal products – each contributing around 0.5 percentage points to the exports growth rate between 2000 and 2010 (Figure 3). As a result, the weight of these sectors on total exports increased in this period (Figure 4). On the opposite direction are closing and footwear, and textiles and leather, which presented negative contributions, and machinery, which presented a null contribution. Consequently, the weight of these sectors on total exports decreased between 2000 and 2010 (Figures 3 and 4).

With the exception of 2009, the share of extra-EU15 exports of goods has been consistently increasing since 2000, going from about 19% to 29% in 2010 (Figure 5). The main contributors to this diversification were African countries, mainly Angola, whose share in the total exports of goods went from 1.4% in 2000 to 5.2% in 2010, and Maghreb countries. Exports to America and Oceania remained stable through the decade, whereas exports to Asia registered an increase between 2000 and 2005, and a decrease in the second half of the decade. Within Europe, exports to Spain and Eastern countries increased between 2000 and 2010, but this change was more than offset by the fall in exports to other countries, such as Germany and the United Kingdom (Table 2).

[15] A detailed explanation of these effects is provided in Júlio and Pinheiro-Alves (2011).

Figure 6 scatters the diversification index for sectors and markets.[16] The trend indicates an increase in diversification along both dimensions, but much more significant for destination markets. This formally captures the idea, presented in Figure 5 and in Table 2, that Portuguese exports have become geographically less concentrated. The increase in the sectors diversification index is related to the substitution of the exports of several products with a lower weight in total exports for textiles and leather, and clothing and footwear.

The Revealed Comparative Advantage Index (RCAI)[17] shows a reduction in Portugal's comparative advantages around 0.4 points for clothing and footwear, 0.3 points for textiles and leather, and 0.2 for machinery, between 2000 and 2010. These sectors registered a low or even negative exports growth rate during this period. Nevertheless, except for machinery, the Portuguese comparative advantages in these sectors were still positive in 2010, as RCAI was still greater than zero. On the opposite direction are wood, paper and cork, food products, minerals and metal products, chemicals and energy, all of which registered an increase in the RCAI between 2000 and 2010 (Figure 7). The RCAI of transport equipment remained slightly unchanged in the decade.

Figure 8 shows a negative correlation between the 2005's RCAI and the exports yearly growth rate for the 2005-2010 period, for the same sectors. This evidence suggests that Portuguese exports grew more in the second half of the decade in sectors where comparative advantages were small or non-existent – such as food products, energy, chemicals and minerals and metal products – and less in the traditional sectors where comparative advantages were initially higher. Therefore, the Portuguese export sector seems to be undertaking a structural change, exploring new export opportunities in non-traditional areas. Figure 9 suggests that this structural adaptation of the Portuguese export sector might have begun earlier, since the share of low technology manufacturing exports decreased consistently between 2001 and 2006. However, this indicator has not changed substantially since 2006.

From an international perspective, Portuguese exports registered the 4th highest growth rate among EU15 countries in the 2005-2010 period, behind Luxembourg, the Netherlands and Germany. This contrasts with the 2000-2005 period, in which Portuguese exports grew

[16] The diversification index is defined as the complement of the Herfindahl index, multiplied by 100. It ranges from 0 to 100, where higher values mean more diversification. In the sectors diversification index, only goods were considered.
[17] RCAI is the logarithm of the ratio between the Portuguese market share in world exports for a given product type and the Portuguese market share in total world exports. If RCAI is greater (smaller) than zero, the Portugal presents a revealed comparative advantage (disadvantage) in that product.

well below average (Figure 12). The share of Portuguese exports on GDP is still below the EU average, although some progress has been made in the 2005-2010 period (Figure 13). Notice that it is more important for Portugal to have a larger share of exports on GDP than for Spain, Italy, or France, since the Portuguese domestic market is smaller. Figure 14 shows that Portugal has made a great progress in the exports of services, whose share in total exports went from values below the EU15 average to values above between 2000 and 2010.

Despite the recent increase in geographic diversification, Portuguese exports are still excessively concentrated in the EU15. In fact, the share of Portuguese exports of goods to extra-EU15 countries was below 30% in 2010, which contrasts with 43.7% for the EU15 average (Figure 15).

Portugal displayed the 5th highest change in the relative market share among EU15 countries, in the period between 2005 and 2009, despite the -1.1% yearly change in this indicator (Figure 16). This relative performance is, to a great extent, explained by the increase in the competitiveness of Portuguese exports, which registered the 3rd highest value among EU15 countries (Figure 17). Portugal also performed well relative to the EU15 countries (3rd position) in the indicator which measures the ability of exports to adapt to changes in the world demand – adaptation effect. However, the product specialization effect (7th position), and above all the geographic specialization effect (14th position) did not allow Portuguese exports to achieve a better outcome.

The global enabling trade index, which assesses the role of institutions, policies and services in facilitating the free flow of goods across borders, shows that Portugal is ranked in 36th place among the 125 countries that were scrutinized (Table 4). The sub-indexes show a good performance in terms of market access and business environment relative to other EU15 countries, but a below average performance in border administration and communication and infrastructure relative to the same countries.

4.2 – Outward FDI

Outward FDI stocks have increased to 28% of GDP in 2010 from 17% in 2000. This upward trend was more expressive in the first half of 2000s, stabilizing since 2007 (Figure 10). A similar conclusion is provided in Figure 11, which shows that FDI outflows were positive throughout the decade, albeit decreasing. The exception is 2010, whose negative value can be at least partially explained by the sale of Portugal Telecom's stake in the Brazilian company VIVO to Telefonica.

Finally, Table 3 shows that Portuguese outward FDI is still well below that of EU27 countries, despite the recent positive trend. In 2010, Portuguese outward FDI stock set at 28%, whereas the E27 displayed a value around 55%.

5 – Concluding Remarks

In this article, we concluded that exports and outward FDI are important sources of economic competitiveness. Exports tend to be associated with higher economic growth, higher levels of R&D, and higher levels of productivity and production efficiency. Additionally, they are also a key determinant of a country's external deficit, and in the current macroeconomic scenario, they are expected to be the only source of growth of the Portuguese aggregate demand in the forthcoming years. Outward FDI may also lead to higher economic growth in the source country, especially if foreign investments allow the firm to access new markets and customers, and to import new technology and business practices that have spillover effects over other firms.

However, the private decisions may not be compatible with the social optimal allocation, as there are several market failures associated to exports and outward FDI. Small and Medium enterprises – the main driving of national exports – may not have sufficient dimension to support the costs of entering in foreign markets. And, even if they can support the entry costs, they may be reluctant in doing so, since the gathering of foreign market information may directly benefit their competitors. Credit restrictions may prevent firms from accessing the financial market, and adverse selection issues in insurance markets may hamper the access to insurance at a reasonable cost. Outward FDI may bring to the home country new and better business practices, foreign technology and expertise, which may have spillover effects over other domestic firms, enhancing their competitiveness and consequently boosting economic growth.

Therefore, several measures have been put into place to correct these market failures – measures that ease the access to credit and insurance from exporting firms and that aid them throughout the process of internationalization, and measures that are designed to promote a high-quality business environment, which fosters the competitiveness of domestic firms, both internally and abroad. Since R&D activities may have positive spillovers on other firms in particular and the economy in general, some measures also explore the link between R&D and exports. Some selected investments abroad that contribute to the development of the national economy and foster economic growth are also supported by policy measures.

6 – Bibliography

Aghion, P. and P. Howitt (1992), "A model of growth through creative destruction," Econometrica, 60(2), pp. 323-351.

Aghion, P. and P. Howitt (1998), "Endogenous growth theory," MIT Press.

Ahmad, J. (2001), "Causality between exports and economic growth: what do the econometric studies tell us?," *Pacific Economic Review*, 6(1), pp. 147-167.

Ahmad, J. and S. Harnhirum (1995), "Unit roots and cointegration in estimating causality between exports and economic growth: empirical evidence from the ASEAN countries," *Economic Letters*, 49(3), pp. 329-334.

Ahmad, J. and A.C.C. Kwan (1991), "Causality between exports and economic growth," *Economic Letters*, 37(3), pp. 243-248.

Amaral, J.F. (2006), "Evolução do Comércio Externo Português de Exportação (1995 -2004)," GEE, Working Paper N. 1.

Aw, B.Y., Roberts, M.J. and T. Winston (2007), "Export market participation, investments in R&D and worker training, and the evolution of firm productivity," *The World Economy,* 30(1), pp. 83–104.

Barrell, R. and N. Pain (1997), "Foreign direct investment, technological change, and economic growth within Europe," *The Economic Journal*, 107(445), pp. 1770-1786.

Barrios, S., Görg, H. and E. Strobl (2003), "Explaining firms' export behavior: R&D, spillovers and the destination market," *Oxford Bulletin of Economics and Statistics,* 65(4), pp. 475-496.

Barro, R. and X. Sala-i-Martin (2004), "Economic growth," MIT Press, 2nd edition.

Cabral, M. (2008), "Export diversification and technological improvement: recent trends in the Portuguese economy," GEE, Working Paper N.º 6.

Chao, W.S. and J. Buongiorno (2002), "Exports and growth: a causality analysis for the pulp and paper industries based on international panel data," *Applied Economics*, 34(1), pp. 1-13.

Chow, P.C.Y. (1987), "Causality between export growth and industrial performance: evidence from the NICs," *Journal of Development Economics*, 26(1), pp. 55-63.

Desai, M.A., Foley, F. and J.R. Hines Jr. (2005), "Foreign direct investment and domestic capital stock," *American Economic Review Papers and Proceedings*, 95(2), pp. 33–38.

Dornbusch, R., Fischer, S. and P.A. Samuelson (1977), "Comparative advantage, trade, and payments in a Ricardian model with a continuum of goods," *The American Economic Review*, 67(5), pp. 823-839.

Dunning, J. (1979), "Explaining changing patterns of international production: in defense of the eclectic theory," Oxford Bulletin of Economics and Statistics, 41(4), pp. 269-295.

Dunning, J. (2008), "Multinational enterprises and the global economy," Cheltenham: Edward Elgar.

Esfahani, H. (1991), "Exports, imports, and economic growth in semi-industrialized countries," *Journal of Development Economics,* 35(1), pp. 93-116.

European Commission (2009), "Internationalization of European SMEs."

Fosu, A.K. (1990), "Export composition and the impact of export on economic growth of developing economies," *Economic Letters*, 34(1), pp. 67-71.

Girma, S., Greenaway, D. and R. Kneller (2004), "Does exporting increase productivity? A microeconometric analysis of matched firms," *Review of International Economics,* 12(5), pp. 855-866.

Golovko, E. and G. Valentini (2011), "Exploring the complementarity between innovation and export for SMEs' growth," *Journal of International Business Studies* 42(3), pp. 362-380.

Hausmann, R. and D. Rodrik (2003), "Economic development as self-discovery," *Journal of Development Economics,* 72(2), pp. 603-633.

Heckscher, E. (1919), "The effect of foreign trade on the distribution of income," *Ekonomisk Tidskriff*, pp. 497-512. Translated as Chapter 13 in *American Economic Association, Readings in the Theory of International Trade*, Philadelphia: Blakiston (1949), pp. 272-300.

Helpman, E. and P. Krugman (1985), "Market structure and foreign trade: increasing returns, imperfect competition, and the international economy," Cambridge MA, MIT Press

Helpman, E., Melitz, M.J. and S.R. Yeaple (2004), "Export versus FDI with heterogeneous firms," *The American Economic Review*, 94(1), pp. 300-316.

Herzer, D. (2008), "The long-run relationship between outward FDI and domestic output: evidence from panel data," *Economics Letters*, 100(1), pp. 146-149.

Herzer, D. (2010), "Outward FDI and economic growth," *Journal of Economic Studies*, 37(5), pp. 476-494.

Ito, K. and V. Pucik (1993), "R&D spending, domestic competition, and export performance of Japanese manufacturing firms," *Strategic Management Journal,* 14(1), pp. 61-75.

Jones, C.I. (1995), "R&D-based models of economic growth," *Journal of Political Economy*, 103(3), pp. 759-784.

Jones, C.I. and J.C Williams (1998), "Measuring the social return to R&D," *Quarterly Journal of Economics*, 113(4), pp. 1119-1135.

Jones, C.I. and J.C Williams (2000), "Too much of a good thing? The economics of investment in R&D," *Journal of Economic Growth*, 5(1), pp. 65-85.

Jones, R.W. (1961), "Comparative advantage and the theory of tariffs: A multi-Country, multi-commodity model," *Review of Economic Studies*, 28(3), pp. 161-175.

Kavoussi, R. (1984), "Export expansion and economic growth: further empirical evidence," *Journal of Development Economics,* 14(1), pp. 241-250.

Kimura, F. and K. Kiyota (2006), "Exports, FDI, and productivity: dynamic evidence from Japanese firms," *Review of World Economics*, 142(4), pp. 695-719.

Krugman, P. (1979), "Increasing returns, monopolistic competition, and international trade," *Journal of International Economics*, 9(4), pp. 469-479.

Krugman, P. (1980), "Scale economies, product differentiation and the pattern of trade," American Economic Review 70(5), pp. 950-959.

Krugman, P. (1991), "Increasing returns and economic geography," Journal of Political Economy, 99(3), pp. 483-499.

Júlio, P. and C. Nunes (2010), "A Promoção do investimento," *Boletim Mensal de Economia Portuguesa, GEE and GPEARI,* N.º 12|2010.

Júlio, P. and R. Pinheiro-Alves (2011), "The recent performance of Portuguese trade in goods: a complementary approach," *Boletim Mensal de Economia Portuguesa, GEE and GPEARI,* forthcoming.

Lederman, D., Olarreaga, M. and L. Payton (2010), "Export promotion agencies: do they work?," *Journal of Development Economics*, 91(2), pp. 257-265.

Lewer, J. and H. Van den Berg (2003), "How large is international trade's effect on economic growth?," *Journal of Economic Surveys,* 17(3), pp. 363-396.

Marchant, M.A., Cornell, D.N. and W.W. Koo (2002), "International trade and foreign direct investment: substitutes or complements?," *Journal of Agricultural and Applied Economics*, 34(2), pp. 289-302.

McKenzie, L.W. (1954), "Specialization and efficiency in the world production," *Review of Economic Studies*, 21(3), pp. 165-180.

McKenzie, L.W. (1956), "Specialization in production and the production possibility locus," *Review of Economic Studies*, 23(3), pp. 56-64.

Nunes, C. e R. Pinheiro-Alves (2010a), "A inovação como factor de competitividade em Portugal," *Boletim Mensal de Economia Portuguesa, GEE and GPEARI,* N.º 11|2010.

Nunes, C. e R. Pinheiro-Alves (2010b), "Políticas para o Ambiente de Negócios em Portugal," *Boletim Mensal de Economia Portuguesa, GEE and GPEARI*, N.º 12|2010.

Ohlin, B.G. (1933), "Interregional and International Trade," Cambridge: Harvard University Press.

Oxley, L. (1993), "Cointegration, causality and export-led growth in Portugal, 1865-1985," *Economic Letters*, 43(2), pp. 163-166.

Pfaffermayr, M. (1994), "Foreign direct investment and exports: a time series approach," *Applied Economics*, 26(4), pp. 337-351.

Ricardo, D. (1817), "On the principles of political economy and taxation," London: John Murray.

Romer, P.M. (1990), "Endogenous technological change," *Journal of Political Economy*, 98(5), pp. S71-S102.

Salvatore, D. and T. Hatcher (1991), "Inward oriented and outward oriented trade strategies," *Journal of Development Studies*, 27(3), pp. 7-25.

Shan, J. and F. Sun (1998a), "On the export-led growth hypothesis: the econometric evidence from China," *Applied Economics*, 30(8), pp. 1055-1065.

Shan, J. and F. Sun (1998b), “Export-led growth hypothesis for Australia: an empirical re-investigation,” *Applied Economics Letters*, 5(7), pp. 423-428.

Shiozawa, Y. (2007), “A new construction of Ricardian trade theory – A many-country, many-commodity case with intermediate goods and choice of production techniques,” *Evolutionary and Institutional Economics Review,* 3(2), pp.141-187.

Silva, A. (2011), “The role of subsidies for exports: evidence from Portuguese manufacturing firms,” GEE, Working Paper N. 35.

Sterlacchini, A. (1999), “Do innovative activities matter to small firms in non-R&D-intensive industries? An application to export performance,” *Research Policy*, 28(8), pp. 819-832.

Stevens, G.V.G. and R.E. Lipsey (1992), “Interactions between domestic and foreign investment,” *Journal of Money and Finance,* 11(1), pp. 40-62.

Stiglitz, J.E. and A. Weiss (1981), “Credit rationing in markets with imperfect information,” *The American Economic Review*, 71(3), pp. 393-410.

Yaghmaian, B. (1994), “An empirical investigation of exports, development, and growth in developing countries: challenging the neoclassical theory of export-led growth,” *World Development*, 22(12), pp. 1977-1995.

Young, A. (1998), “Growth without scale effects,” *Journal of Political Economy,* 106(1), pp. 41-63.

Portugal

Table 1: Weight and yearly growth rate of exports of goods and services.

	Weight in total exports (%)			Growth rate (%)		
	2000	**2005**	**2010**	**2000-2005**	**2005-2010**	**2000-2010**
Goods	73.46	71.80	67.66	2.73	3.38	3.05
Services	26.54	28.20	32.34	4.46	7.52	5.98
Total	**100**	**100**	**100**	**3.20**	**4.61**	**3.90**

Source: INE, BdP and own calculations

Figure 1: Total exports as a percentage of GDP.

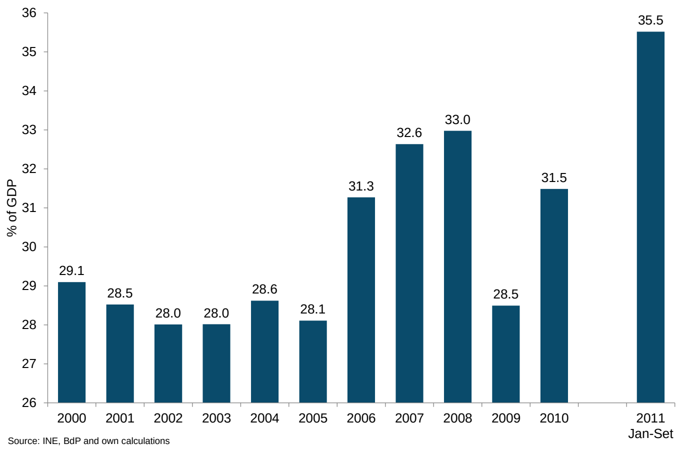


Figure 2: Decomposition of the relative change in the Portuguese world market share in the trade of goods (yearly averages).

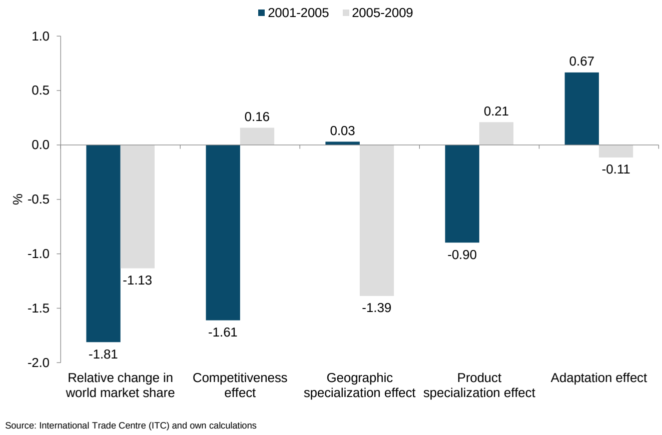


Figure 3: Sectorial contributions to the change in Portuguese exports (yearly averages).

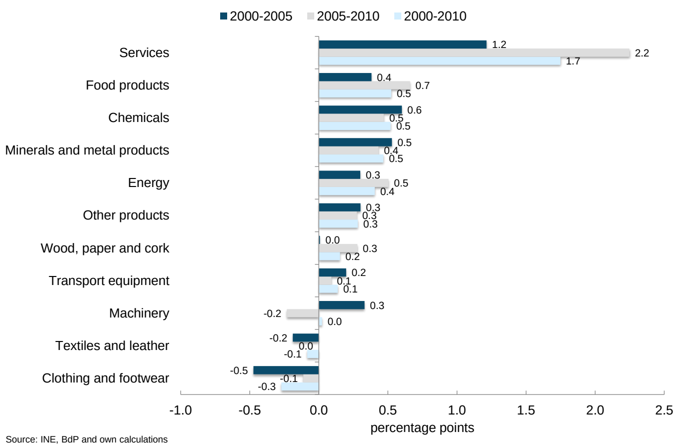


Figure 4: Sectorial weight in total exports.

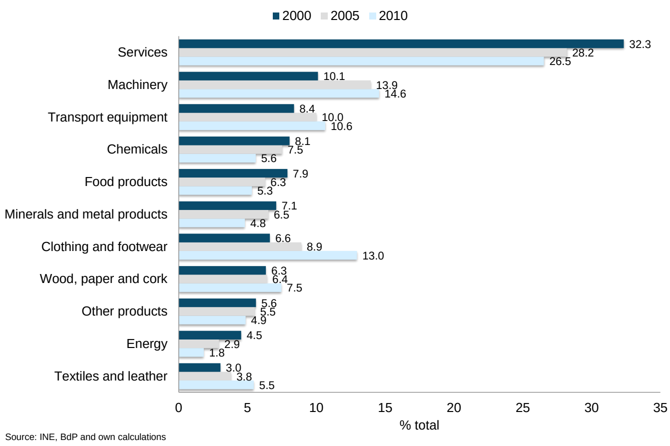
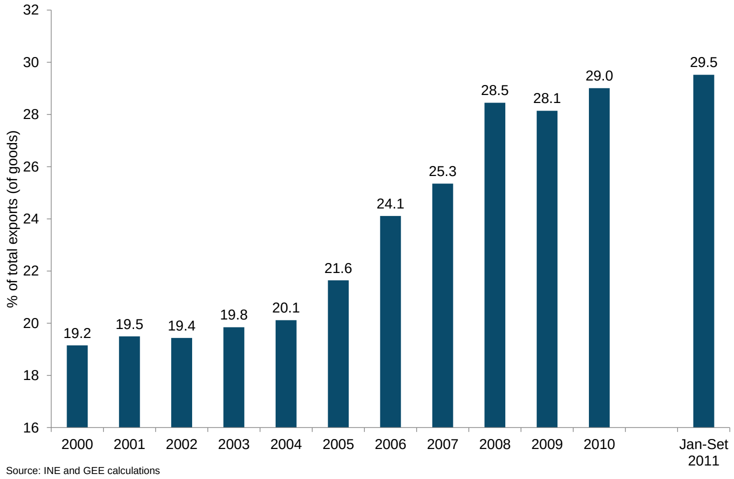
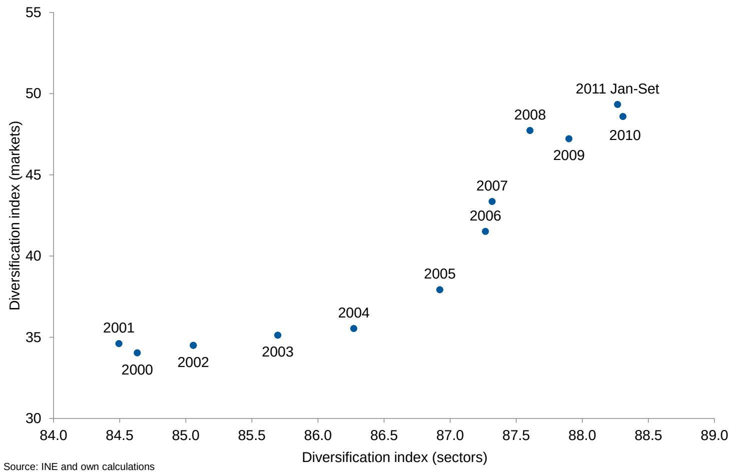


Figure 5: Extra-EU15 exports of goods (as a % total exports of goods).



Source: INE and GEE calculations

Figure 6: Exports diversification index by sectors/markets (index range 0-100).



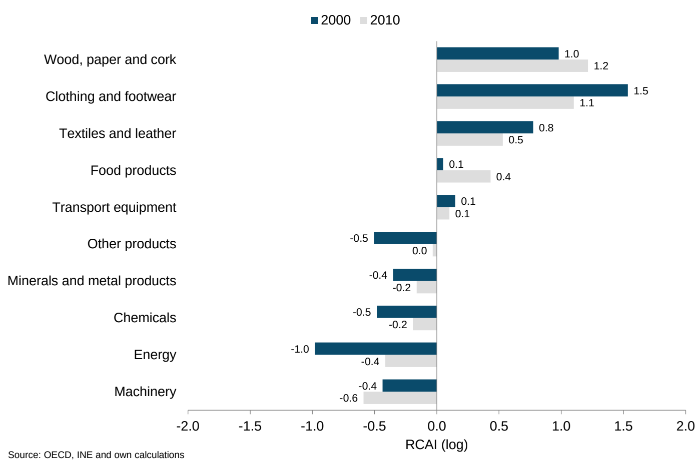
Source: INE and own calculations

Table 2: Decomposition of goods exports by the most relevant markets and regions (as a % of total exports of goods.

	Weight in goods exports (%)		
	2000	2005	2010
Europe	**84.83**	**80.51**	**76.02**
Spain	20.09	27.41	26.57
France	12.71	13.33	11.74
Germany	17.81	12.00	12.80
United Kingdom	10.80	8.11	5.44
Other EU15 countries	19.44	15.65	13.77
Enlargement countries	1.28	1.74	2.97
Other countries	2.71	2.26	2.73
Africa	**3.71**	**4.91**	**9.63**
Angola	1.36	2.58	5.19
Cape Verde	0.62	0.48	0.72
Mozambique	0.25	0.21	0.41
Maghreb	0.61	0.75	1.78
Other countries	0.86	0.89	1.54
America	**7.71**	**7.04**	**7.47**
US	**5.60**	**5.30**	**3.56**
Mexico	0.16	0.27	1.09
Brazil	0.72	0.57	1.18
Other countries	1.22	0.90	1.63
Asia	**2.62**	**3.98**	**3.14**
ASEM	1.31	2.60	1.58
Other countries	1.31	1.39	1.56
Oceania	**0.45**	**0.31**	**0.22**
Other	**0.68**	**3.25**	**3.53**

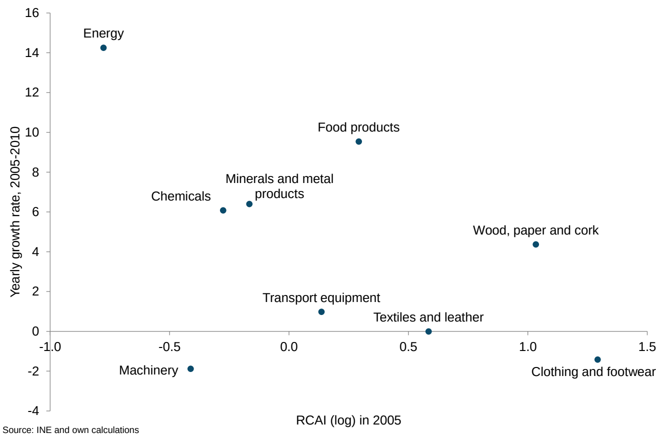
Source: INE and GEE calculations

Figure 7: Relative Comparative Advantage Index (RCAI) by sector.



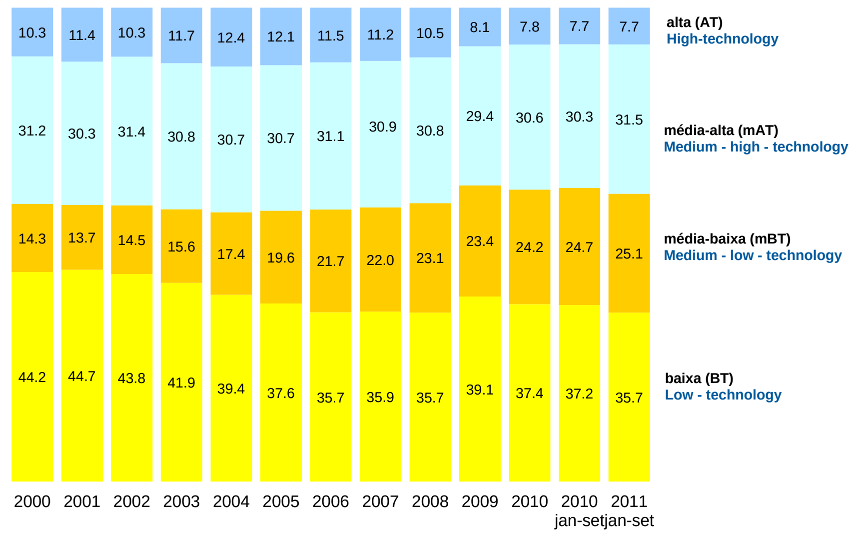
Source: OECD, INE and own calculations

Figure 8: Scatter plot between the 2005's RCAI and the yearly growth rate for the 2005-2010 period.



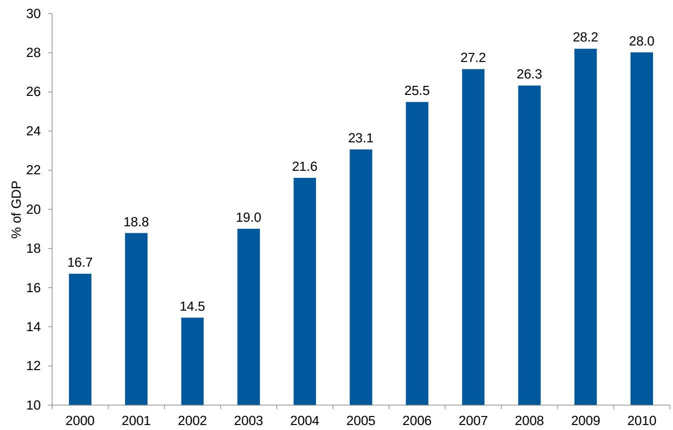
Source: INE and own calculations

Figure 9: Manufacturing exports by technological intensity (% total manufacturing exports).



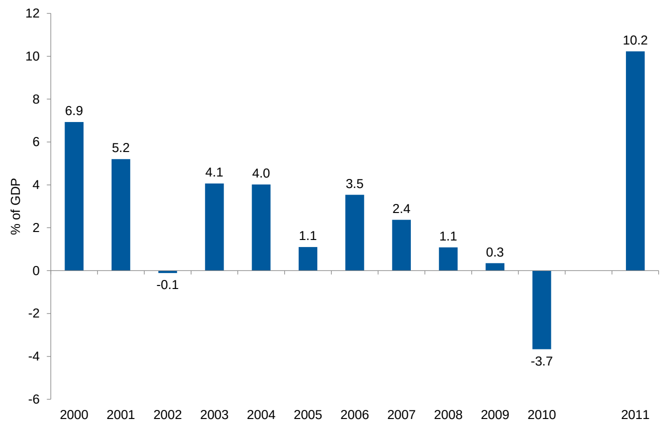
Source: INE and own calculations

Figure 10: Outward FDI (% GDP).



Source: BdP and INE

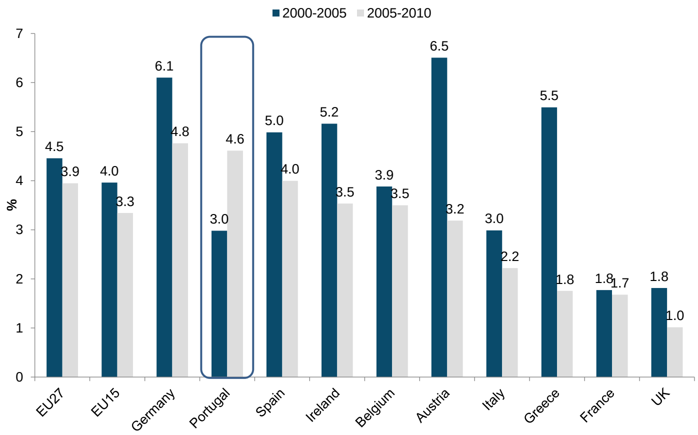
Figure 11: FDI outflows (% GDP).



Source: BdP and INE

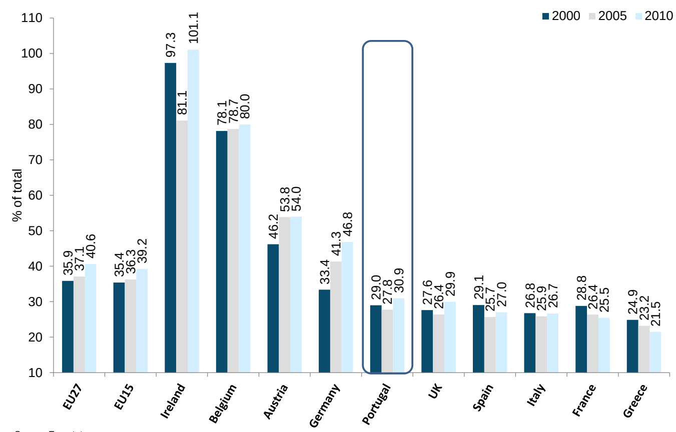
International comparisons

Figure 12: Exports growth rates (yearly averages).



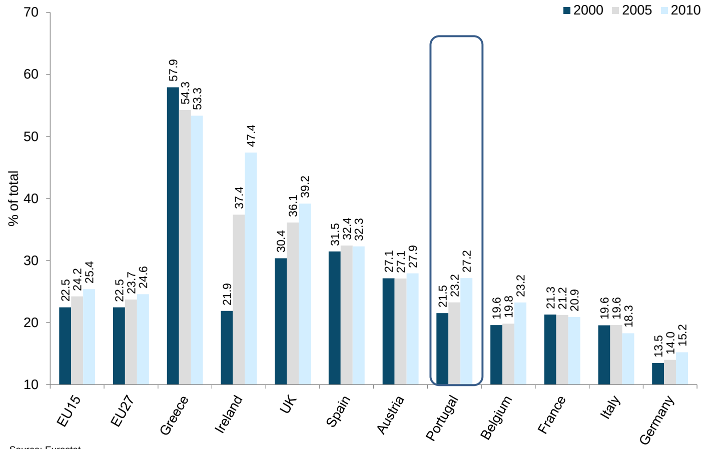
Source: Eurostat and GEE calculations

Figure 13: Total exports as a percentage of GDP.



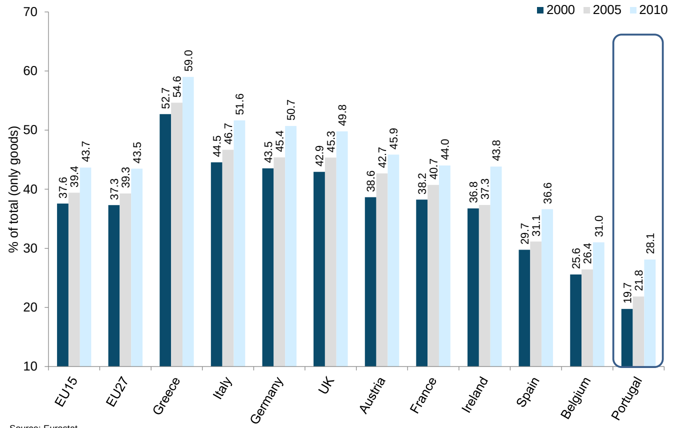
Source: Eurostat

Figure 14: Exports of services (as a % of total exports).



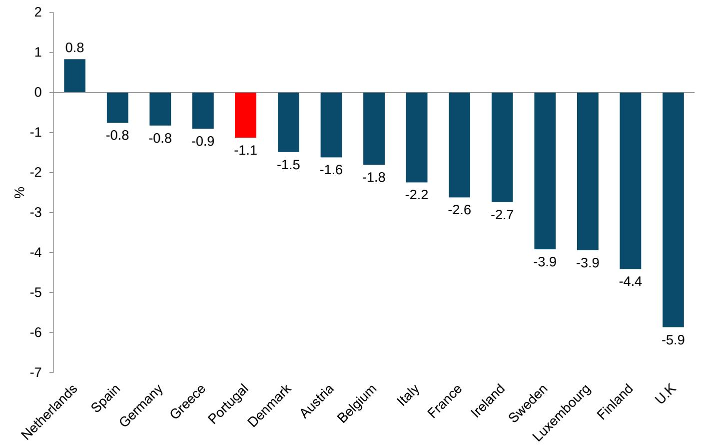
Source: Eurostat

Figure 15: Extra-EU15 exports of goods (as a % of total exports of goods).



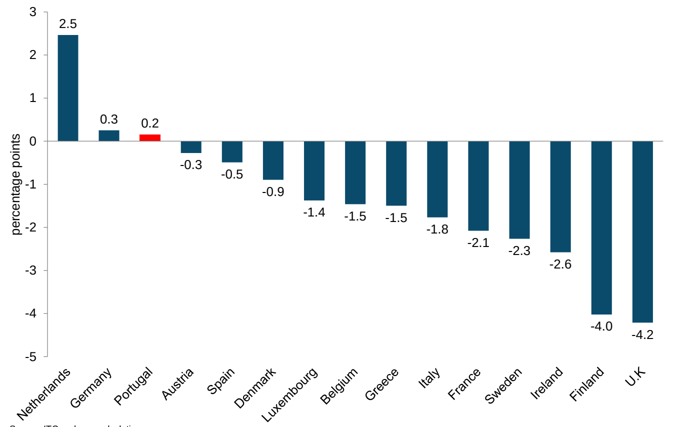
Source: Eurostat

Figure 16: Relative change in market share (percentage), 2005-2009 yearly average.



Source: ITC and own calculations

Figure 17: Relative change in the market share that is explained by the competitiveness effect (percentage points), 2005-2009 yearly average.



Source: ITC and own calculations

Table 3: Outward FDI as a percentage of GDP.

	EU27		Germany		Spain		France		Greece		Ireland		Italy		Portugal		United Kingdom		United States		Japan	
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
2000	9.6	41.2	3.0	28.5	10.0	22.2	13.3	69.6	1.7	4.8	4.8	28.9	1.1	16.4	**6.9**	**16.9**	15.8	60.8	1.4	27.0	0.7	6.0
2005	4.4	42.1	2.7	33.3	3.7	27.0	5.3	28.5	0.6	5.6	7.1	51.6	2.4	16.5	**1.1**	**22.0**	3.5	52.6	0.1	28.7	1.0	8.5
2010	2.5	54.9	3.2	42.9	1.5	46.9	3.3	4.8	0.4	12.5	8.7	171.1	1.0	23.2	**-3.8**	**28.1**	0.5	75.3	2.2	32.8	1.0	15.1

Source: United Nations, UNCTAD STAT database

Table 4: Global Enabling Trading Index, 2010.

	Overall	Market Access	Border Administration	Transport and communication infrastructure	Business Environment
Germany	13.º	101.º	15.º	1.º	15.º
Spain	32.º	102.º	28.º	17.º	46.º
France	20.º	97.º	21.º	4.º	27.º
Greece	55.º	75.º	71.º	35.º	72.º
Ireland	21.º	109.º	7.º	23.º	16.º
Italy	51.º	78.º	52.º	28.º	76.º
Portugal	**36.º**	**77.º**	**36.º**	**25.º**	**30.º**
United Kingdom	17.º	91.º	13.º	2.º	32.º
United States	19.º	62.º	19.º	11.º	37.º
Japan	25.º	121.º	16.º	14.º	34.º

Source: World Economic Forum (2010), The Global Enabling Trade Report 2010.
The Enabling Trade Index measures the extent to which individual economies have developed institutions, policies and services facilitating the free flow of goods over borders, in a total of 125 countries. Besides trade policy, this index assesses border administration, transportation and communications, and the general business environment.

Medida	Descrição	Documento Legal/Data de Inicio	Benefícios	Execução/Resultados
IAPMEI				
Promover as Exportações Portuguesas				
EXPORT INVEST	Tem como objectivo o fomento das exportações, através de uma resposta a necessidades de financiamento e cobertura de riscos relacionadas com a atividade empresarial, que envolva longos ciclos de fabrico. Um dos principais objectivos do novo pacote de apoios é permitir o desconto junto da banca das encomendas firmes efectuadas por clientes estrangeiros às empresas nacionais que tenham ciclos longos de produção e faturação, designadamente no sector dos moldes, máquinas e equipamentos, software.		A Linha de Seguro de Crédito (200 milhões de euros), designada por OCDE III, permitirá às empresas exportadoras o acesso a seguros de crédito específicos por operação, válidos por um prazo de até 2 anos, visando a cobertura dos riscos de crédito e, igualmente, de fabrico. A Linha de Crédito (75 milhões de euros) para apoiar o financiamento da produção dos produtos e equipamentos com ciclos de fabrico de até 18 meses, destinados à exportação, será operacionalizada através da Banca. Os créditos a conceder, com limite de € 500 mil por operação, e 4 operações em simultâneo por empresa, beneficiarão de garantias do Sistema Nacional de Garantia Mútua de até 50%, podendo ser amortizados até 5 anos e beneficiar de uma taxa de juro competitiva face às atuais condições de mercado.	**Execução a 10 de Novembro de 2011:** **Linha de Seguro de Crédito ainda não tem montantes atribuídos.**
Linha de apoio ao crédito comercial das PME através de seguros de crédito	Existem 3 linhas de apoio ao crédito comercial, 2 destinadas a países da OCDE (uma das quais com garantia mútua), e outra destinada a países fora da OCDE. Estas linhas têm como objectivo dinamizar a atividade económica e as exportações portuguesas, minimizando os efeitos da crise financeira e económica internacional, através do apoio aos mecanismos de seguro de créditos (reforço de “plafonds”), em particular à atividade exportadora, com garantia do Estado. Existe ainda uma linha de seguros de crédito e de investimento, às quais as empresas podem recorrer através da COSEC, S.A., e que se destina a cobrir riscos relacionados com a exportação de bens/serviços ou capitais. Os riscos de natureza comercial são assumidos na íntegra pela COSEC, S.A., enquanto os riscos de natureza política beneficiam da garantia do Estado.		Linha de Seguro de Créditos para Países da OCDE (OCDE I) – 1.000 milhões euros, dos quais 500 milhões têm garantia do Estado, e o restante é garantido garantidos pelas quatro Companhias de Seguro de Créditos subscritoras do Protocolo Linha de Seguro de Créditos para Países da OCDE, com Garantia do Estado (OECD II) – 1.000 milhões de euros. Linha de Seguro de Créditos para Países fora da OCDE, com Garantia do Estado – 1.000 milhões de euros. A linha de seguros de crédito e de investimento protocolada através da COSEC permite a partilha do risco para investimentos Portugueses no estrangeiro numa percentagem que pode atingir 95% do valor contratado. Na modalidade de Seguro de Créditos à Exportação, cobre os riscos associados à empresa importadora (riscos comerciais) ou ao país de importação (riscos políticos e extraordinários) quer ocorram na fase de preparação da encomenda, quer após expedição dos bens / prestação do serviço. No caso do Seguro de Créditos com Garantia do Estado, está em causa a cobertura de riscos políticos e extraordinários associados ao país importador, como sejam atos ou decisão do Governo do país de importação, expropriação, nacionalização, confisco, dificuldades de transferência, conversão e moratória geral, guerras, revoltas, motins e eventos catastróficos.	**Execução a 10 de Novembro de 2011:** **Linha fora da OCDE – COSEC: Montante Segurado Garantia Pública = 378,8 M€.** **Linha OCDE I: Montante Segurado Garantia Pública = 211,019 M€.** **Linha OCDE II: Montante Segurado Garantia Pública = 36,9 M€.**

Medida	Descrição	Documento Legal/Data de Inicio	Benefícios	Execução/Resultados
Facilitar o investimento direto de empresas portuguesas no estrangeiro				
Incentivos fiscais à internacionalização	Este regime aplica-se a projetos de investimento, que demonstrem interesse estratégico para a internacionalização da economia Portuguesa, realizados nos seguintes sectores de atividade: - Indústria extractiva e indústria transformadora; - Turismo e as atividades declaradas de interesse para o turismo nos termos da legislação aplicável; - Atividades e serviços informáticos e conexas; - Atividades agrícolas, piscícolas, agropecuárias e florestais; - Atividades de investigação e desenvolvimento de alta intensidade tecnológica; - Tecnologias da informação e produção de audiovisual e multimédia; - Ambiente, energia e telecomunicações; - Atividades associadas aos polos de competitividade e tecnologia; - Construção de edifícios, obras públicas e atividades de arquitetura e de engenharia conexas com aquelas; - Transportes e logística.	**Decreto-Lei n.º 250/2009 de 23 de Setembro de 2009**	Aos projetos de investimento é concedido: - Crédito fiscal utilizável em IRC de 10% das aplicações relevantes, a deduzir ao montante apurado nos termos da alínea a) do nº 1 do artigo 90.º do Código do IRC, não podendo ultrapassar em cada exercício 25% daquele montante, com o limite de 1 milhão de euros em cada exercício; Majorações: - 10%, para projetos desenvolvidos por pequenas e médias empresas; - 5%, em caso de reconhecida relevância excepcional do projeto para a economia nacional.	
QREN				
Promover as Exportações Portuguesas				
Sistema de Incentivos à Investigação e Desenvolvimento Tecnológico nas Empresas	Projetos que envolvam atividades de investigação industrial e/ou de desenvolvimento experimental, conducentes à criação de novos produtos, processos ou sistemas, ou à introdução de melhorias significativas em produtos, processos ou sistemas existentes. O mais recente concurso destina-se a apoiar projetos de I&DT que reforcem a capacidade competitiva das empresas exportadoras no acesso aos mercados externos.	**Portaria n.º 1462/2007, de 15 de Novembro** **Portaria n.º 711/2008, de 31 de Julho** **Portaria n.º 353-B/2009, de 3 de Abril** **Portaria n.º 1102/2010, de 25 de Outubro**	A natureza dos incentivos pode revestir as seguintes formas: - Incentivos não reembolsáveis; - Incentivos reembolsáveis; - Bonificações da taxa de juro. Majorações: - Investigação industrial 25 pontos percentuais (p.p.). - Tipo de Empresa: 10 p.p. para médias empresas; 20 p.p. para pequenas empresas; - Cooperação: 15 p.p. para projetos de "Cooperação entre empresas"; "Cooperação com Entidades do SCT; "Divulgação Ampla dos resultados."	**<u>Em 1 de Março de 2011</u>:** **N.º de Projetos Contratados = 1.001.** **Incentivo concedido = 388,4 M€.** **<u>Em 30 de Junho de 2011</u>:** **Foram apoiados 496 projetos envolvendo um investimento elegível de 477,7 M€ e um incentivo de 260,5 M€.**
Sistema de Incentivos à Inovação	Apoia projetos de investimento de inovação produtiva promovidos por empresas, a título individual ou em cooperação. Visa promover a inovação no tecido empresarial, pela via da produção de novos bens, serviços e processos que suportem a sua progressão na cadeia de valor, bem como, reforçar a orientação das empresas para os mercados internacionais.	**Portaria n.º 1464/2007, de 15 de Novembro** **Portaria n.º 353-C/2009, de 3 de Abril** **Portaria n.º 1103/2010, de 25 de Outubro** **1.º Concurso: de 15-11-2007 a 29-01-2008**	Taxa Base Máxima: 45%. Majorações: - Tipo de Empresa: 10 p.p. a atribuir a Médias Empresas, à exceção de projetos com despesa elegível superior a 50 milhões de euros e de projetos do sector dos transportes; 20 p.p. a atribuir a pequenas empresas, à exceção de projetos com despesa elegível superior a 50 milhões de euros e de projetos do sector dos transportes; - Tipo de Estratégia: 10 p.p. a atribuir aos projetos de inovação produtiva, desde que inseridos em estratégias de eficiência colectiva de base territorial ou sectorial. Apoio ao empreendedorismo feminino ou jovem de 10 p.p..	**<u>Em 1 de Março de 2011</u>:** **N.º de Projetos Contratados = 1.141.** **Incentivo concedido = 1.782,4 M€.** **<u>Em 30 de Junho de 2011</u>:** **Foram apoiados 502 projetos envolvendo um investimento elegível de 4.540,4 M€ e um incentivo de 1.402,5 M€.**

Medida	Descrição	Documento Legal/Data de Inicio	Benefícios	Execução/Resultados
Sistema de Incentivos à Qualificação e Internacionalização de PME	Apoio a projetos de investimento promovidos por empresas, a título individual ou em cooperação, bem como por entidades públicas, associações empresariais ou entidades do Sistema Científico e Tecnológico (SCT) direcionados para a intervenção nas Pequenas e Médias Empresas (PME). O concurso mais recente destina-se a apoiar investimentos empresariais que reforcem a capacidade das empresas no sentido de assegurar ganhos mais rápidos em termos de uma maior orientação do produto interno para a procura externa.	**Portaria n.º 1463/2007, de 15 de Novembro** **Portaria n.º 250/2008, de 4 de Abril** **Portaria n.º 353-A/2009, de 3 de Abril** **Portaria n.º 1101/2010, de 25 de Outubro**	Os incentivos vão desde os €25.000 aos €400.000 por projeto. Taxa base máxima: 40% Majorações: - Tipo de Empresa: 5 p.p. a atribuir a pequenas empresas; - Tipo de Despesa: 5 p.p. para médias empresas, para "outras despesas de investimento" excepto contratação (artigo 12.º, alínea c)); 10 p.p. para pequenas empresas (acumuláveis com a majoração "tipo de empresa") e para médias empresas, para despesas de aquisição de equipamento para superar as normas em matéria de ambiente (artigo 12.º, alínea a), iv)). - Tipo de Estratégia: 5 p.p. a atribuir quando os projetos se inserirem em estratégias de eficiência colectiva.	**Em 15 de Novembro de 2010:** **N.º de projetos contratados = 2.233.** **Montante de incentivo = 278,3 M€.** **Em 30 de Junho de 2011:** **Foram apoiados 960 projetos envolvendo um investimento elegível de 401,7 M€ e um incentivo de 181,6 M€.**
		Capital de Risco		
Sistema de Apoio ao Financiamento e Partilha de Risco da Inovação – SAFPRI	O SAFPRI visa impulsionar a disseminação de instrumentos de financiamento que proporcionem melhores condições para apoiar projetos de investimento empresarial.	**Regulamento do SAFPRI aprovado em 11 de Maio de 2010** **Decreto-Lei n.º 175/2008 de 26 de Agosto**	Participação em fundos de capital de risco que preveem investimentos em: - Empresas com planos de inovação e internacionalização; - Empresas de base tecnológica através de fundos "corporate venture"; - Empresas nas fases iniciais de desenvolvimento; - Projetos com conteúdo tecnologicamente relevante na fase de prova de conceito. Empréstimos de médio prazo, com o valor máximo de €500.000 a sociedades de *Business Angels*. Implementação de linhas de crédito com bonificação de juros e de comissão de garantia, envolvendo as instituições de crédito e o sistema nacional de garantia mútua.	**Em 15 de Novembro de 2010:** **N.º de projetos Contratados = 28.** **Montante de incentivo = 292 M€.** **N.º de Empresas Envolvidas (Linhas PME Investe I e II) = 4398.** **Em 30 de Junho de 2011:** **Foram criadas 2 linhas de crédito para as PME (PME INVESTE I e II).** **Foi criada uma linha de financiamento a *Business Angels*.** **Foram criados 26 Fundos de Capital de Risco.**
Fundo de Apoio ao Financiamento à Inovação – FINOVA	O FINOVA está vocacionado para a criação ou o reforço de instrumentos de financiamento de empresas, em particular, no que se refere às Pequenas e Médias Empresas (PME) e aos projetos com maior grau de inovação.			
		AICEP		
		Promover as Exportações Portuguesas		
INOV Export	Este programa de estágios profissionalizantes tem como objectivos: - Estimular as exportações e o processo de internacionalização; - Colmatar as insuficiências de capital humano, através do estímulo à contratação de especialistas para a área de comércio internacional; - Melhorar as estratégias de internacionalização do tecido empresarial português, nomeadamente nas PME.	**Portaria n.º 238/2010 de 29 de Abril**	Este programa de estímulo ao emprego de especialistas em comércio internacional nas PME nacionais exportadoras ou potencialmente exportadoras visa, de forma estruturante e sustentada, gerar novas oportunidades que venham a ser materializadas em factores de competitividade de natureza colectiva e a induzir efeitos de crescimento em matéria de internacionalização das PMEs portuguesas, através da integração de técnicos especialistas em comércio internacional, nos seus quadros.	**Número de Jovens Abrangidos:** **Em 2010: 186** **De 1/1/2011 a 31/8/2011 : 186**
Lojas de Exportação	Consiste num novo serviço de proximidade, que tem como objectivo incentivar as PME com vocação exportadora a iniciar o seu processo de internacionalização ou a ampliar a sua atividade em mercados externos. O serviço constitui uma das medidas do Pacto para a Internacionalização, um compromisso do Governo para reforçar a promoção das exportações nacionais e contribuir para aumentar a presença das PME portuguesas em mercados internacionais. Disponíveis nos serviços regionais do IAPMEI, numa parceria com a AICEP, as Lojas da Exportação vão apoiar tecnicamente as PME na sua abordagem a mercados internacionais, ajudando-as na formulação de estratégias e no contacto com parceiros locais, numa rede	**Resolução de Conselho de Ministros n.º 115/2009 de 15 de Dezembro**	- Apoio na formulação de estratégias de abordagem a mercados internacionais; - Informação sobre mercados; - Assistência na procura e contacto com parceiros locais; - Informação sobre instrumentos financeiros de apoio à internacionalização; - Dinamização de oportunidades de negócio.	

Medida	Descrição	Documento Legal/Data de Inicio	Benefícios	Execução/Resultados
	de 14 pontos que cobrem todo o País.			
Simplex Exportações	Visa simplificar procedimentos que facilitem as exportações. Prossegue-se, assim, o esforço de modernização administrativa e o estímulo à competitividade. O SIMPLEX EXPORTAÇÕES é, por isso, uma das cinquenta medidas anunciadas no âmbito da Iniciativa para a Competitividade e o Emprego, aprovada no passado dia 15 de Dezembro de 2010. Estão a desenvolver este programa várias entidades públicas, nomeadamente a Direcção-Geral das Alfândegas e Impostos Especiais sobre o Consumo, a Direcção-Geral de Informática e Apoio aos Serviços Tributários e Aduaneiros, o do Instituto Nacional de Estatística, a AICEP, o Ministério dos Negócios Estrangeiros, o Instituto Nacional de Propriedade Industrial e as Direções Regionais da Agricultura.	**Resolução do Conselho de Ministros de 15 de Dezembro de 2010**	Este projeto é composto por várias medidas que se consubstanciam em: - Isenção de IVA mais rápido; - Exportação mais fácil de produtos sujeitos a imposto especial sobre o consumo; - Certificado comprovativo de exportação electrónico; - Alargamento do prazo para apresentação de documentos; - Estatísticas de comércio internacional mais acessíveis; - Mais serviços no balcão do exportador; - Apoio da AICEP mais transparente; - Informação diplomática mais próxima e acessível; - Redução de barreiras comerciais; - Informação sobre propriedade industrial para apoio à exportação; - Registo de patentes em Espanha mais fácil ("patent prossecution highway" ibérico); - Pagamentos automáticos em todas as direções regionais de agricultura.	
Capital de Risco				
Fundos de Capital de Risco geridos pela AICEP Capital Global, S.A.	Este programa tem como linhas gerais: - Orientar prioritariamente os capitais disponíveis para o investimento em participações acionistas, minoritárias e temporárias, em PMEs portuguesas envolvidas em estratégias de internacionalização de negócio; - Fomentar a adopção e reprodução de boas práticas de *governance* nas empresas participadas; - Valorizar os Fundos de Capital de Risco (FCR) sob gestão e os capitais do acionista.	**Novembro de 1994** **Julho de 2004** **Dezembro de 2004** **Abril de 2011**	FCR AICEP Capital Global II: €4.987.978. FCR AICEP Capital Global GPI: €65.400.000. FCR AICEP Capital Global FIEP: €60.000.000 (capital já reembolsado aos Participantes em €39.600.000). FCR AICEP Capital Global Internacionalização: €6.000.000	**Em 30 de Setembro de 2011:** **24 participações em carteira.** **78,7 M€ de investimento em carteira (apenas nos FCR mencionados).**
Inovcapital				
Capital de Risco				
InovCapital	Desenvolve a sua atividade no apoio ao empreendedorismo e no suporte às PME nas áreas da Inovação e da Internacionalização.	**Decreto-Lei n.º 375/2007 de 8 de Novembro**	- Participação no Capital Social, partilhando o risco do negócio. - Uma relação de parceria de médio/longo prazo assente na integridade, transparência e ética. - Uma equipe técnica qualificada e pró-ativa, focada no desenvolvimento dos negócios. - Um compromisso de inovação e melhoria contínua.	**Em 31 de Agosto de 2010:** **149 participações em carteira e 141,1 M€ de investimento.** **Em 30 de Setembro de 2011:** **142 participações em carteira e 171 M€ de investimento.** **Gere 14 Fundos de Capital de risco.**
Turismo Capital				
Capital de Risco				
Turismo Capital	Tem como missão fortalecer as políticas públicas e a competitividade do turismo nacional, através da participação no capital de empresas inovadoras e com potencial de valorização. Participa no capital social de uma empresa que desenvolve projetos turísticos, de forma a garantir o suporte financeiro e *know-how* necessários ao seu desenvolvimento.	**4 de Setembro de 1991**	- A Turismo Capital participa exclusivamente em projetos cujo principal negócio se baseie na atividade turística. - A participação no capital é sempre minoritária (habitualmente entre 20% e 30% do capital social). - O período de permanência médio no capital é de cerca de 8 anos (limitada, por prazo máximo legal, a 10 anos).	**O ano de 2009 caracterizou-se por 4 operações de investimento que ascenderam a 13,3 M€, integralmente realizado através deste fundo.** **No ano de 2009 recebeu 41 projetos de investimento (mais que duplicou o registo de 2008).** **Em 31 de Agosto de 2010:** **30 participações em carteira.** **53,2 M€ de investimento.** **A Turismo Capital investiu em 2010 e 2011 numa única operação de internacionalização, no valor de €1.987.500.**