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Invoicing Currencies in International Trade - Drivers and Obstacles to the Use of the Euro

LANGEDIJK Sven KARAGIANNIS Stylianos PAPANAGIOTOU Evangelia

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Abstract

This report aims to deepen the understanding of the micro aspects of the use of the euro in international trade invoicing and/or settlement. What determines the use of a currency in the invoicing of international trade? Is the euro increasingly used as an invoicing currency in international trade? What are the obstacles to the use of the euro in trade invoicing? This report collates existing analyses on the possible obstacles for using the euro in international trade and discusses the theoretical and empirical literature addressing these questions.

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Glossary

PCP: Producers Currency Pricing

VCP: Vehicle Currency Pricing

LCP: Local Currency Pricing

EXECUTIVE SUMMARY

This report aims to deepen the understanding of the micro aspects of the use of the euro in international trade invoicing and settlement. It provides insights into the determinants of the use of the euro in international trade invoicing while investigating associated obstacles across selected industries by looking at legal, regulatory, accounting and international payment infrastructure restrictions, and/or trade practices. It consists of a literature review and a survey with both quantitative and qualitative dimensions. The survey concentrates on five corporate sectors: (i) aircraft, (ii) energy, (iii) financial services, (iv) electrical engineering, and (v) mechanical engineering.

The study first provides an overview of the theoretical and empirical literature, and recent developments concerning the use of the euro in extra-euro area trade. The percentage of exports of euro-area firms to countries outside the euro area that is invoiced in euro ranges from 60% to 75% depending on the data-collection methodology. Recent macro data collected by the ECB indicate that around two-thirds of extra-euro area exports of goods and services are invoiced in euro.

Very few empirical studies focus specifically on the drivers of the use of the euro in international trade. The findings in these studies are broadly in line with theoretical literature and empirical findings of studies of other currencies. They confirm that euro-area firms mainly invoice in euro when exporting. With regard to the determinants for choosing a currency other than the euro for trade invoicing, the literature finds that: firms tend to adopt the invoicing currency of their main competitors; firms in large countries invoice more in their own currency; large firms invoice less in euro; and more homogeneous goods tend to be invoiced less in euros. The quantitative survey covered mainly medium-sized companies in the five covered corporate sectors. The findings confirm that the euro is widely used by euro-area firms in their invoicing practices in international trade. Specifically, almost 80% invoice 76-100% of their extra-euro area exports in euro, while 67% of the firms said that they do not use any other currency for export invoicing. In general, firms reported that their invoicing practices were not affected by the European sovereign debt crisis. Further analysis indicates that the use of currencies other than the euro is often not related to obstacles that discourage the use of the euro, but rather to other factors. For example, firms indicate client preference and the dominant role of the US dollar as a vehicle currency in global finance as reasons. A small minority of firms point to accounting issues and regulatory and legal obstacles. The findings on these possible obstacles apply to the mechanical and electrical engineering industries only.

The qualitative survey, complementing its quantitative counterpart, targeted large firms in the same five sectors with qualitative questionnaires and in-depth interviews. The survey provides evidence that the US dollar is the dominant invoicing currency in the aircraft and energy industries. In these sectors the qualitative survey does not point to microeconomic obstacles to using the euro. Firms reported that there are no regulatory, legal or accounting issues. In the aircraft and aerospace industry none of the interviewees saw much benefit or scope to change the US dollar dominance in their sector. It is the established dominant currency in that sector due to the global nature of the aircraft and aerospace market, the US dollar-based revenue structure of clients, historical reasons and the important linkages of the aircraft industry with the oil market. The interviewed aircraft and aerospace companies underlined the importance of exchange rate risk management. Overall, these firms are satisfied with the availability of hedging instruments which enable them to pursue various hedging strategies. While hedging is generally unproblematic to the major firms in the industry, SMEs do not have similar access to hedging, as they are generally credit constrained and need to use their credit lines for investments and working capital rather than hedging. The companies also noted that banks were very reluctant when requested to engage in any payment activities for transactions in "sensitive countries". For the energy sector, the dominance of the US dollar stems from the global commodity and energy markets that are traditionally US dollar dominated. Finally, in the financial, electrical and mechanical engineering sectors, no obstacles to using the euro in international trade could be identified.

An important caveat to the interpretation of the survey results is the low response rate obtained in both the quantitative and the qualitative components. For the quantitative survey more than 17000 companies were contacted with a response rate of 2.3%, or a total of 400 responses. The qualitative survey yielded a similarly low response rate. A possible explanation for the low response rates, as suggested by the results obtained in the survey, is that most of the EU companies mostly use the euro for their exports, i.e. they do not consider a survey on obstacles relevant for their business. This result was also confirmed by some of the industry associations.

In summary, European firms mostly use the euro in their invoicing practices in international trade. While there may be some obstacles at the micro-level that cause some companies to reduce their use of the euro, there is no evidence of widespread concerns in any sector. In some cases firms prefer to use the US dollar due to its role as a global financing and vehicle currency. Sound macroeconomic policies, the deepening of the EU Economic and Monetary Union, and the development of the Capital Markets Union, may all contribute to further strengthen the role of the euro on the global trade and finance markets.

1. Introduction

The Eurogroup on 16th February 2015 agreed that international trade invoicing and settlement currencies¹ are important issues affecting firms in the euro area and invited the Commission to look for possible obstacles to using the euro in international trade. Against this background, this report aims to deepen the understanding of the micro aspects of the use of the euro in international trade invoicing and settlement. In particular, the report attempts to answer the following questions: What determines the use of a currency in the invoicing of international trade? Is the euro increasingly used as an invoicing currency in international trade? What are the obstacles to the use of the euro in trade invoicing?

The study addresses the questions by: (i) mapping practices in invoicing, pricing and settlement; and (ii) analysing the main determinants for using the euro in international trade, and (iii) identifying possible obstacles to the use of the euro. On the basis of the mandate given by the Eurogroup and by taking into account the largest exporting EU industries, the study focuses on five corporate sectors, namely: (i) aircraft, (ii) energy, (iii) financial services, (iv) electrical engineering, and (v) mechanical engineering.

In order to facilitate the above, a specialized survey with two dimensions - a quantitative and a qualitative one - was designed and conducted. The reason why we combine two types of surveys is twofold: first, to reveal various aspects that differentiate small and large companies, and, second to ensure the robustness of the provided results. On the basis of a mandate by DG ECFIN, the qualitative survey was performed by the JRC while the quantitative one was conducted by Eurobarometer (the company operating under the Eurobarometer framework contract was TNS opinion (TNS)). The latter one covers firms in Germany, France and Italy. As regards financial services, given the importance of players outside the EU on transactions, the scope also covers the UK.

The research strategy underlying this study consists of four steps, which also serve as a structure of the report: (i) a review of the relevant theoretical and empirical literature which collates existing analyses on the possible obstacles for using the euro in international trade, together with the recent developments of the use of the euro in international trade invoicing (ii) a descriptive analysis of the two surveys (qualitative and quantitative) that were conducted in order to investigate the invoicing practices and possible related obstacles in the euro area, (iii) the empirical findings based on the results of the quantitative survey, and (iv) a summary of qualitative survey results. Finally, conclusions are provided in the last section.

¹ Please note that while the term invoicing is mainly used throughout this report it refers to both invoicing and settlement in international trade.

2. Literature review

This section is devoted to a detailed review of the relevant theoretical and empirical literature which collates existing analyses on the possible obstacles for using the euro in international trade. The section is organized as follows: Section 2 sets the scene by discussing recent developments and presenting available data on the use of the euro in international trade. Section 3 provides the main theoretical literature findings. Section 4 offers the main results on country-specific and industry specific studies. Finally, Section 4 provides a discussion of the obstacles related with the use of the euro in international trade, as supported by the literature.

2.1 Data on currency denomination of international trade

The main source of consistent data on the use of the euro in international (extra-euro area) trade invoicing is the ECB's annual report on the international role of the euro. Using national central banks statistics, ECB provides this data for the import and exports of goods and services for selected euro area and EU member-states. Figures 2.1 and 2.2 below present the evolution of the euro's share as a settlement/invoicing currency in extra-euro area export and imports for goods and services respectively, during the 2006-2014 period. Overall, the share of the euro in international trade has increased slightly over the last decade. ECB (2015a) notes in its last available report that more than two-thirds (67.3%) of all extra-euro area exports of goods were invoiced in euro in 2014 (67.5% in 2013) while the respective share for imports stood at 48.8% in 2014. In services, the euro's share in exports was broadly flat between 50% and 55% till 2013 when it jumped to more than 64%.² It remained at that level in 2014. In the same period, the share of euro invoicing in services imports declined from a peak of 60.5% in 2011 to around 53% in 2014. (See also Box 1 for the different estimates of the share of invoicing and settlement of trade in euros)

The ECB provides a number of explanations for the evolution of the euro's share in international trade invoicing:

- Since the introduction of the euro in 1999, most euro area countries expanded their use of the euro in the trade of goods and services with countries outside the euro area (ECB, 2009).
- Institutional factors, such as being part of the EU or an EU candidate country, are highly significant in explaining the use of the euro in international trade (ECB, 2007).
- Developments in energy markets may explain some of the variations throughout the years in share of the euro as an invoice/settlement currency for exports of goods (ECB, 2007).

² Please note that data from 2013 may show a break due to the implementation of the updated balance of payments international standards (BPM6) (ECB, 2015)



in extra-euro area exports and imports of goods in the euro





Source: ECB (2015a)

area.



The euro's share in international trade invoicing varies across countries (see Figure 2.3 and 2.4, below). Also fluctuations over time within countries have been substantial. A number of member states have increased the use of the euro in goods exports (i.e. in Cyprus from 2.8% in 2007 to almost 50% in 2011). In others there was little change over time while some showed small decreases (see Spain and Greece) (see Figure 2.3, below). The same divergence can be observed in the service sector, where the share of invoiced euro trade exports rose significant in some economies (i.e. Italy and Portugal at 80% and 90% respectively in 2014), where it remained particularly low in other countries (i.e. Greece at around 28% in 2014) (see Figure 2.4, below).

According to ECB's analysis, the differences in the use of the euro across member states and their development over time can be attributed to a number of reasons, such as traditional geographical trade links and specialisation in US dollar denominated sectors, including oil and petroleum products. In detail:

- Recently, a number of countries experienced some reversals in the use of the euro during the sovereign debt crisis (i.e. Greece, Spain and Portugal) (ECB, 2015a). This could be due to a reduction in the levels of trade these countries have with European trading partners, while their trade with the developing Asian and Middle Eastern countries has increased over this period, resulting mainly in an increase in the use of the US dollar and of other currencies as the invoicing currency (ECB, 2014).
- The effect of the introduction of the euro had different effects across countries. In Estonia, where the euro was introduced in 2011, the euro's share in exports rose sharply and now most international trade is denominated in euros (around 78% for the exports of goods and 70% for the exports of services). By contrast, adopting the euro has had less of an impact on the settlement and invoicing of international trade in Slovakia and Slovenia, where the euro was already widely used for those purposes before it was actually introduced in those countries (ECB, 2012).

The high exposure of Greece to the maritime transportation sector also explains its overall lower share of settlements denominated in euro, as transactions in this sector are usually conducted in US dollars (ECB, 2007).



Figure 2.3: Euro's share as a settlement/invoicing currency in Figure 2.4: Euro's share as a settlement/invoicing currency in extra-euro area exports of goods in selected countries.







Source: ECB (2015a). Not all euro area countries compile data on the currency of settlement or invoicing of their international trade transactions on a regular basis. Note that: (i) Figures for France 2013 to 2014 (ii) Figures for Cyprus 2007 to 2014 (ii) Figures for Latvia 2010 to 2014 (iv) Figures for Luxemboug 2011 to 2014 (v) Figures for Slovenia 2006 to 2013 (vii) Figures for Spain 2005 to 2013 (viii) Figures for Estonia 2009 to 2014.

Box 1: Different estimates of the share of invoicing and settlement of trade in euros

There is no consensus on the exact share of euro invoicing or settlement of exports outside the euro area. Estimates differ across reports and studies depending on the data collection method used, namely aggregated (national) or disaggregated (firm level) approaches. As Table 2.1 indicates, the percentage of exports invoiced in euros range from 60% to 75%, while a detailed times series that includes related bilateral trade statistics is not available.

According to the ECB (2005) the available aggregate data may include bias since invoicing and settlement currencies trade may differ. Specifically, two counterparts may agree that trade is invoiced in a given currency, but settled in another currency. Therefore, data reported according to the currency of invoicing (i.e. the currency of denomination of contracts) and data reported according to the currency of settlement (i.e. the currency in which the corresponding payments are made through the banking system) may differ. While academic literature mainly focuses on invoicing as a determinant of the pricing behavior of international corporations, available data refer to the settlement currency in many cases (ECB, 2005).

Table 2.1. Euro invoicing fr	om EMU based firms	in their export (extra-euro area)
Goldberg & Tille (2008)	40%-50% in 2002	Aggregate country-level data
Kamps (2006)	60% in 2004	Aggregate country-level data
ECB (2015)	59.5% in 2005	Aggregate country-level data
Martin & Mejean (2012)	75% in 2008	Firm-level weighted data
ECB (2015)	63.4 % in 2010	Aggregate country-level data

2.2 Theoretical literature on drivers and obstacles to the use of the euro

What drives firms' invoicing currency choice in international trade? This section provides an overview of the factors influencing the currency choice according to the theoretical literature. The drivers can be broadly classified into: i) transaction costs and industry characteristics (market/bargaining power, homogeneous goods); ii) inertia and market externalities; iii) Exchange rate and macro-economic volatility; and iv) country size and monetary union; v) financial issues. The studies offered below mainly fall into the macroeconomic aspects of international trade and finance category, although a number of them offer a micro theoretical analysis framework (i.e. firm bargaining).

2.2.1 Market competition characteristics and transaction costs

In a seminal paper Swoboda (1968) first offered the explanation of transaction costs in the choice of currency, as highly liquid currencies associated with low transaction costs are likely to be chosen as medium of exchange. McKinnon (1979) supports this hypothesis and emphasizes the transaction costs for vehicle currencies. He notes that homogeneous products and primary commodities are expected to be invoiced in a (vehicle) currency that offers low transaction costs and thus increased international comparability and transparency in the market. (See also Box 2 regarding vehicle currencies)

Market and bargaining power is also well documented in the currency choice literature. McKinnon (1979) states that the predominance of local currency pricing by European countries was due to the fact that exporters of industrial products enjoy greater market power due to product differentiation. The importance of industry specific features together with the degree of competition and elasticity of demand is included in a influential study by Goldberg and Tille (2005). They introduce the "herding" characteristic in the choice of currency where producers follow competitors' invoicing strategy, also if it implies pricing in the local currency or using a vehicle currency. They suggest that producers in industries with high demand elasticities (more homogenous goods) are more likely to demonstrate "herding" in their choice of currency than producers in other industries.

Following their previous line of work, Goldberg and Tille (2013) utilise a simple model of bargaining in order to expand the theoretical analysis beyond the standard assumption of unilateral choice by the exporter. Their main research question is to analyse the determination of prices and exposure to exchange rate fluctuations among exporters and importers. They conclude that first, the market structure, has a substantial impact on effective bargaining weights, prices, and exchange rate exposure. Second, they argue that the counterpart with the highest effective weight bears more of the exchange rate risk, as they prove that this counterpart has relative low returns from the bargaining

process. They suggest that future work should include a more general model that will incorporate all aspects of the price contract, which would not be limited only to the exchange rate exposure. Finally, they support that in a situation of high exporter heterogeneity (with one exporter dominating the market) is characterized by a higher average level of preset prices, a higher average exposure of exporters to exchange rate movements (due to more importer currency pricing), and a positive correlation between the value of transactions and the exchange rate exposure of exporters.

The issue of the elasticity of demand (or demand uncertainty) together with price uncertainty is well documented from the early days of the currency choice literature. Giovannini (1988) and Donnenfeld and Zilcha (1991) develop partial equilibrium models in a profit-maximizing setting to study the link between price and demand uncertainty from the side of exporters. According to this line of research, exporters can decide to price in either their home or the local market currency. If the exporting firm chooses the local currency, the quantity demanded will be 'known', while exchange rate fluctuations would affect the revenue raised by the firm when converted back to its own currency. Alternatively, when a firm chooses to price exports in its home currency, any exchange rate fluctuations will raise the price to local consumers and thus change the quantity demanded.

Bacchetta and van Wincoop (2005) look at these demand and cost effects on the exporter's choice in a general equilibrium framework. They develop new insights on the conditions under which pricing in local currency would be the optimal strategy for an exporter. Their main finding is that in a context of high elasticity of demand and steeply increasing marginal costs, local currency pricing is optimal. In the context of highly elastic demand currency fluctuations will imply large quantity effects and steeply increasing marginal costs. In turn, this will generate an unfavorable asymmetry between the costs and benefits of the quantity effects of currency appreciations and depreciations in case of home currency pricing. In particular, the higher marginal costs will increasingly offset higher revenues from greater quantities of goods sold.

Box 2: Vehicle Currency(ies) in International Trade: U.S. Dollar vs Euro

For the past half century, the U.S. dollar has served as the world's leading international currency (Tavlas, 1998). It is also the most used vehicle currency in international trade transactions, defined as the invoiced currency that is not the national currency of either the importer or the exporter (BIS, 2010). According to the 2013 data, the U.S. dollar remained the dominant vehicle reaching 87% of all trades in foreign exchange (BIS, 2013). In the same year, the euro was the second most traded currency, but its share fell to 33% in April 2013 from 39% in April 2010.

But, why does the world need an international or vehicle currency and will the euro gain importance as vehicle currency? Regarding the need for an international currency, related literature agrees that it is more efficient to use a single currency, or a limited number of currencies, as the numeraire and medium of exchange to trade across multiple markets (IMF, 2006). Relative efficiency efficiencies are achieved twofold. First, channeling transactions through one currency involves fewer foreign exchange markets, thus reducing set-up costs for market makers. Second, with fewer markets, the volume of transactions in each will likely be larger, in general reducing transaction costs (see Hartmann, 1998). With respect to the international role of the US dollar and the euro as a vehicle currency the literature provides abundant evidence, albeit diverse in their results. In the early days of its creation, the euro was expected to challenge the dollar's supremacy (Portes & Rey, 1998). This argument was based among others in some studies that acclaimed that during the 1990s the U.S. dollar lost attractiveness as invoicing currency while the DEM gained somewhat in importance during the 1980s (see among others Black, 1991; Tavlas 1991). In the same notion, Wilander (2004) finds that the euro was often used as vehicle currency from 1999 to 2002. On the contrary, Goldberg and Tille (2005) also find evidence for a strong role of the U.S. dollar as vehicle currency, especially in Korea, Thailand, Japan, Australia, the UK and Greece. In her analysis on accession countries Goldberg (2005) argues that the accession countries are using the euro to a degree that is higher than optimal given their trade partners' composition of trade and the variance and covariance of macroeconomic conditions vis-àvis the trading partners.

2.2.2 Inertia and economies of scale

McKinnon (1979) suggests that inertia plays an important role in the currency invoicing choice due to historical reasons and familiarity when invoicing in it. Krugman (1980) confirms the significance of inertia, noting that the more a currency is established, the more difficult it is for users to shift to other currencies. He also associates inertia with lower transaction costs when using a widely available and liquid currency. More recently, Rey (2001) also supports the inertia hypothesis in currency invoicing, arguing that there is an incentive to use one invoicing currency to maintain lower international prices and competitiveness, as invoicing in multiple currencies will impose higher transaction costs and thus higher export prices. In other words, through positive externalities or economies of scale, the wide use of a currency as a medium of exchange may prove to be self-reinforcing. As Rey (2001) argues, high liquidity or "thick" trading in a given currency imply that low transactions costs are associated with the currency trading also in foreign exchange markets.

In the same notion, Chinn and Frankel (2008) provide theoretical evidence on the network externalities and economies of scope that play a role in the inertia of the dominance across different international currency functions. They argue that: (i) an individual (exporter, importer, borrower, lender or currency trader) is more likely to use a given currency in his or her transactions if everyone else is doing so; (ii) if a currency is widely used to invoice trade, it is more likely to be used to invoice financial transactions as well; (iii) if it is more widely used in financial transactions, it is more likely to be a vehicle currency in foreign exchange trading, and finally (iv) if it is used as a vehicle currency, it is more likely to be used as a currency to which smaller countries peg.

2.2.3 Macro-economic and exchange rate volatility

The discussion on the choice between different currencies was re-initiated when major exchange rates became flexible after the breakdown of Bretton Woods in 1973 (Kamps, 2006). It was then assumed that risk-averse exporters will choose to invoice in their home currency, as the exporter (producer) was the one that initiated the contract. Baron (1976) emphasised the role of exchange rate volatility for the use of trade currencies as well as the volume of international trade. As highlighted by WTO (2012) exchange rate volatility may have negative effects on the structure and the cost of output, profit maximization and the decision to trade and not, thereby possibly reducing trade and currency use (see Cushman, 1983; DeGrauwe and Verfaille, 1988; Giovannini, 1988; Bini-Smaghi, 1991). Recently, Goldberg and Tille (2005) showed that the use of home currency by exporters does not depend on exchange rate volatility *per se* but on the fluctuations of the exchange rate together with developments in other macroeconomic variables (i.e. wages and foreign demand).

Overall, the literature supports that the attractiveness of currencies is determined by the ability of the country issuing the currency to respond to macroeconomic shocks and limit macroeconomic volatility (WTO, 2012). As stated earlier, the volatility of wages and foreign demand affects the invoicing of differentiated products (Goldberg and Tille, 2005; Engel, 2005).

2.2.4 Country size and monetary union

Grassman (1973) raises the hypothesis that exporters prefer to invoice in their own currency. The size of the trading partners was included in the literature by Krugman (1984) and Black (1990), suggesting that Grassman's hypothesis does not hold if the importing country is larger than the exporting one. Bacchetta and van Wincoop (2005) provide evidence on the possible effects that a monetary union has on the invoicing currency choice. Using a general equilibrium model with nominal price rigidity they argue that a newly established currency - as the result of a monetary union - is likely to be used more extensively than the sum of the currencies it replaces. This is due to the relative changes of the market share the introduction of the union implies to both exporters and importers. In turn, this will have a positive effect on the liquidity in the foreign exchange market of the newly introduced currency and thus additionally increase its use. Pisanni-Ferry and Posen (2009) confirm the above arguments.

2.2.5 Financial market infrastructure

Tavlas (1997) points out commodity exchanges tend to be centralised in only a few countries that have a comparative advantage as financial centers. The existence of such established exchanges in the United States and the United Kingdom reduces the likelihood that commodities traded through these exchanges would be priced in currencies other than the US dollar and the pound sterling. Hartmann (1998) also suggests that factors such as low liquidity in financial markets and capital controls increases transaction costs and therefore affects the choice of currency in international trade. (See also Box 3 for a description of the international payment system and Box 4 for a description of currency pairs available in the interbank FX market).

Box 3: International Payment System

Globalization inevitably led to an increased demand for cross-border payments. As a common international payment system that operates worldwide does not exist, correspondent banking is the service often used for overseas payments across different jurisdictions.

In correspondent banking two financial institutions engage an intermediate institution to process with the payment. A payer with an account in bank A1 in country A needs to transfer money to a payee's account in bank B1 in country B. As this is a cross border payment the transaction needs to be handled through correspondent banking. The payer submits the payment request to the local bank A1. Bank A1 via the local payment system transfers the request to bank A2 (situated also in country A) which has a bilateral agreement with bank B2 (situated in country B). Finally, the payee's account in bank B1 is being credited by bank B2 via the local payment system. In order to clear the transaction, bank A2 and bank B2 hold accounts in an intermediate bank C. In many instances in the above described route more intermediate banks could be engaged.

The procedure described is mainly handled through the use of Nostro and Vostro accounts. According to the ECB glossary in correspondent banking Nostro stands for an account held (usually in a foreign country in the currency of that foreign country) by a customer bank on the books of another bank acting as a service provider. Vostro stands for an account held by one bank on behalf of another bank.

All the necessary payment instructions are usually given through a standardized secure information transfer system such as SWIFT. SWIFT is a member-owned cooperative in which more than 10,800 financial institutions in over 200 countries exchange daily millions of financial transactions messages.

Although correspondent banking has significantly evolved over time and most of the financial institutions somehow participate, there are inefficiencies associated with its use. Associated costs might be high as a customer needs to pay for multiple intermediate transactions. Moreover customers are not able to trace their order which sometimes might even fail to be executed.

As a result of the lack of a common payment system and of the use of various clearing systems in conjunction with customers' needs for using multiple currencies, various initiatives emerged across the world aiming to simplify cross-border payments. For example, in the Single Euro Payments Area cross-border payments are processed via the TARGET2 integrated payment system. TARGET2 is a realtime gross settlement system owned and operated by the Eurosystem. In a real-time gross settlement system, settlement of funds is processed individually on an order by order basis without any netting. EURO1 is also a payment system for transactions in euro operated by the privately owned EBA CLEARING. In a similar manner Fedwire is the real-time gross settlement system operated by the United States Federal Reserve Banks. CHIPS (Clearing House Interbank Payments System) is the other major US-dollar transfer system in the United States. CHIPS is privately owned with an average daily amount of clearing and settling of \$1.5 trillion and more than 400.000 daily transactions. Payment systems integration is important especially in case participating counterparties do not share a common currency. "Directo a Mexico" is an example of a payment channel operated by Federal Reserve and the Central Bank of Mexico. "Directo a México" is a payment service for transferring funds through a low-cost, fast, and secure channel from financial institutions in the US to banking accounts in Mexico. Another example of an establishment of a payment channel, serving regional needs, through the use of central banks is the Regional Payments and Settlement System of the COMESA (Common Market for Eastern and Southern Africa) Clearing House. COMESA's Clearing House participating central banks offset transactions on a daily basis through the Clearing House but they only settle net debtor balances in USD or euro every two months. Sistema de Pagamentos em Moedas Locais (SML) is a payment system covering trade needs between Brazilian and Argentinian companies which enables foreign trade to be done in local currencies and the respective central banks settle the transactions. Conversion into USD is not necessary and the SML rate is calculated based on a bilateral agreement between the Central Banks of Brazil and Argentine. In 2010 Equens (a major European payment processor) and Federal Reserve Banks started operating a payment system for low-value cross-border payments between the United States and Europe. The payment system enables financial institutions in the United States to send payments in U.S. dollars, euros and British pounds to 22 countries across Europe and vice versa. In 2014 People's Bank of China (PboC) and Bundesbank signed a declaration of intent regarding renminbi (RMB) clearing and settlement in Frankfurt. Frankfurt became the first financial center in the Eurozone which offers the possibility for clearing RMB transactions using the RMB clearing bank. The RMB accounts of the clearing bank are used for the RMB cross-border payments. Further internalization of the RMB as a global currency is foreseen after launching the China's International Payment System (CIPS). CIPS is expected to start operating in 2015 and the main advantage will be that it is expected to minimize costs for transacting using the RMB and additionally reducing processing time.

Box 4: Currency pairs available in the interbank FX market

Although there is no common international standard for characterizing currency pairs, broadly speaking, they can be divided into three categories reflecting their liquidity and the tight spreads. The most traded ones in the interbank foreign exchange market, via electronic platforms or over the counter, are called the "majors". Currency pairs consisting the "majors" all have the US dollar on one side and one of the euro (EUR), the Great British pound (GBP), the Swiss franc (CHF), the Japanese yen (JPY), the Canadian dollar (CAD), the Australian dollar (AUD) and the New Zealand dollar (NZD) on the other. Any pair, not having the US dollar on one hand, formed from the currencies listed above is called a "cross-currency". Among the "cross-currencies" pairs the most traded ones (namely the EUR, the GBP and the JPY) are called "minors". The last category is the "exotic pairs" including the least traded and illiquid currencies against the US dollar.

2.3 Empirical evidence

A number of research studies concentrate on the invoicing determinants using data on single country and/or industry. This subsection offers a birds-eye view of this specific literature, with emphasis on the hypothesis and respective results presented in these studies. The first subsection presents the studies that do not include Europe or the euro in their samples, while the second concentrates solely on European studies. A concise overview of these studies is available in Appendix A.

2.3.1 Empirical evidence from country and industry specific literature

Market characteristics and transaction costs

In line with the theoretical literature in the previous section, Goldberg & Tille (2014) find that homogeneous products are likely to be invoiced in the local or vehicle currencies instead of the exporters' currencies. Similarly, Oi et al. (2004) finds that there is a propensity for industries with more differentiated products to use the producer's currency, e.g. Japanese yen for the Japanese automobile industry.

With respect to the firm's size, smaller exporters are more likely to use their home currency as the main currency for exports (Friberg & Wilander, 2008; for the Swedish market). Also the size of the transaction matters. Large orders are associated with less producers' currency pricing and more with local and vehicle pricing (Goldberg & Tille, 2014).

The degree of competition is found to have ambiguous results in the choice of currency invoicing, Higher importer concentration in an industry (i.e. more bargaining power to the importing firms) raises the use of both local and vehicle currency pricing (Goldberg & Tille, 2014). For the Swedish market, the currency choice of competitors is not a central concern for most firms (Friberg & Wilander, 2008).

We should also add the distinct characteristics that the oil market presents. As the market is mainly dominated by the dollar as a unit of account and means of payment, this is said to rest on two pillars (Eichengreen et al., forthcoming). First, the market is dominated by network effects, as the US was the first oil producer and remained the largest global oil producer for a long period (Krugman, 1980). Second, oil is a fairly homogenous product and it is neither firm nor country-specific and thus producers are price takers. This further supports the U.S. dollar dominance the specific market. Eichengreen *et al.* (forthcoming) argue that the effects of network increasing returns and product homogeneity on the currency used as means of payment in the global oil market are not as strong as conventionally supposed. They suggest that there is room for more than one national currency as means of payment even for a good as homogenous as oil. This conclusion is derived from a growing literature according to which network increasing returns are not as strong as commonly supposed to be.

Macroeconomic and exchange rate volatility

Exchange rates effect on currency choice in international trade is the subject of many empirical studies. Exchange rate risks are found to have a positive impact on invoicing in the importers currency, according to a USA based study by Donnenfeld & Haug (2007). Similarly, Goldberg & Tille (2014) argue that imports from countries with more volatile exchange rates movements than that of the Canadian dollar are more frequently priced in local and vehicle currencies. This does not seem to be the case for trade of Swedish firms. Exchange rates seem to have little impact on the currency choice of Swedish firms (Friberg & Wilander, 2008). Goldberg & Tille (2014) report that exports from countries with currency pegs to the US dollar are more likely to be invoiced in US dollars, while producer currency pricing is stronger among Eurozone exporters. Inflation volatility is found to have an influence on the choice of currency invoicing. Ligthart & Werner (2012) find that a decrease in inflation volatility increases producer currency invoicing in the Norwegian market. This finding is further supported by Silva (2004) using a Dutch sample of bilateral flows with OECD Countries.

Country size and monetary union

The size of the trading partners, as a factor influencing currency choice, has been widely studied in the literature. Donnenfeld & Haug (2007) present evidence that the share in world trade and relative size of the country (GNP) do not have a significant effect in invoicing patterns, when it come to the US market. However, Friberg & Wilander (2008) find for the Swedish market that the price is set in the currency of the customer in large export markets. This finding is confirmed by Silva (2004).

On the possible effects that a monetary union has on the invoicing currency choice from the perspective of its trading partners, Ligthart & Werner (2012) note increased invoicing in euros in the Norwegian economy after the euro introduction compared to the combined use of the constituent currencies. The same applies for the new EU member states after their EU accession (Golsberg, 2005).

Financial market infrastructure, related transaction costs and vehicle currency

There is little empirical research on the impact of foreign exchange transaction and hedging costs on the choice of trade currency. To this date the findings are not conclusive. Ito et al. (2010) finds that forex transaction costs are not important for the currency choice of Japanese firms, while hedging costs matter. The higher the hedging cost is, the less the importer's currency is used for trade invoicing. Further evidence suggest that for larger companies it is particularly important to hedge against exchange rate movements, as they mainly invoice they goods and services in local (foreign) currencies (ECB, 2015b). For some specific industries with longer production chains (e.g. aircraft sector), hedging over longer periods of time was too costly and economically not viable (ECB, 2015b).

Friberg & Wilander (2008) find that the set of financial instruments available in a currency are not important for the currency choice for their sample of the Swedish market. Silva (2004) finds that financial development increases the likelihood of pricing in the currency of the country undergoing financial development. (See also Box 5 below on trade finance)

Regarding vehicle currency use, empirical literature reports a number of interesting findings. Specifically, imports from countries that have a relative high volume of foreign exchange transaction between their currency and the US dollar compared to other currencies also use vehicle currency pricing in US dollars (Goldberg & Tille, 2014). After its introduction, the common currency in Europe it has overtaken US dollar in Norwegian imports as a vehicle country according to the empirical estimations of Lightart & Werner (2012).

Box 5: Trade finance: recent trends and developments

Trade finance is related to a wide range of products provided by global and local banks in order to support their customers to manage their international payments and associated risks, and provide needed working capital in international trade (exports or imports). According to BIS (2014), a flow of some US\$6.5–8 trillion of bank-intermediated trade finance was provided during 2011 worldwide, therefore a third of global trade is supported by one or more bank-intermediated trade finance products.

The academic literature suggests that trade finance is used more heavily for trade covering longer distances, newly formed trade relationships and trades involving countries with weaker contractual enforcement, less financial development and higher political risk (see among others Glady & Potin, 2011; and Niepmann & Schmidt-Eisenlohr, 2013). It is widely accepted that much of trade finance is

priced and settled in dollars. For example, more than 80% of the letters of credit used in international trade are settled in US dollars, while the euro is the second most important currency, but it has only a small share, which declined from 10% in 2010 to 7% in 2012 (ICC, 2012). Funded loans are often dollar-denominated as well, but the overall picture is more mixed. Following the recent financial crisis, the drop in the availability of trade finance seems to have contributed substantially to the fall in trade, and particularly in exports. According to the BIS (2014), efforts in promoting the broad stability and liquidity of the banking system also enhance the stability of trade finance. In the case of the EU, to the extent that the ongoing banking union development enhances the stability of the EU banking sector it could contribute to the expansion of (euro denominated) trade finance products.

2.3.2 Empirical evidence from the euro area

Due to data scarcity there are few empirical studies that focus on the use of the euro in international trade. The following Section provides an overview of studies related to invoicing and currency choice between the euro and other currencies. The available studies can be split into two categories: (i) studies exploiting (macro) aggregate sources (panel datasets with country specific data) and (ii) studies relying on (micro) disaggregated data (surveys based at firm level). Note that all studies test the hypotheses offered by the theoretical literature on currency choice and international trade (see Section 3). Table 2.2 below provides an overview of the drivers that according to the literature have a significant effect on the use of the euro in international trade.

Table 2.2. Euro area empirical studies							
Drivers	Effect	Reasoning	Study				
Market Characteristics							
Homogeneous goods & industry characteristics	(-)	More homogeneous goods tend to be invoiced less in euros with respect to extra-euro area exports	Goldberg & Tille (2008); Martin & Mejean (2012)				
Competition hypothesis	N/A	Firms tend to adopt the invoicing currency of their competitors,	Martin & Mejean (2012)				
Producers currency pricing	(+)	Firms in euro area member-states mainly invoice in their home currency	Kamps (2006); Martin & Mejean (2012); Lai & Yu (2015)				
Size of the firm	(-)	Large firms (in terms of turnover and total exports) invoice less in euro	Martin & Mejean (2012)				
Country size and Monetary Union							
Market power & Country's size (The higher the share of a country's exports (or imports) in worlds exports (imports) the more likely it	Kamps (2006); Lai & Yu (2015); Goldberg & Tille (2008)				

		is to invoice in its own currency. The same applies to country's size				
Monetary union	(+)	Firms in EU and EU candidate countries invoice more	Kamps (2006)			
		in euros				
Financial Infrastructure, Transaction Costs & Vehicle Currency						
Hedging	(-)	Firms that hedge against exchange rate risk or use derivatives are less likely to use euro	Martin & Mejean (2012)			
Trade credit	(-)	Trade credit increases the likelihood of not invoicing	Martin & Mejean (2012)			
		in euros.				
Transaction cost (exchange rates)	(-)	Transaction cost in foreign exchange rates market are lower for U.S. Dollar compared to the euro	Goldberg & Tille (2008)			

Notes: (+) indicates a positive effect, while (-) a negative one. N/A denotes the absence of a significant effect

Macroeconomic studies Kamps (2006)

In a seminal paper, Kamps (2006) provides evidence on the determinants of the euro in international trade invoicing by utilising a novel and extensive invoicing dataset, covering the 1994 to 2004 period for 42 countries (9 euro area countries, 11 EU member-states and 24 countries from the rest of the world). The empirical results exhibit a number of interesting findings. First, regression estimates reveal that EU and EU-candidate countries invoice 17 percentage points more in euro than other countries. Kamps also suggests that positive and significant estimate for the trade in highly differentiated products on the share of euro invoicing of exports, indicates that the euro is not widely used as a vehicle currency in third countries. According to the author, this shows that if countries choose a vehicle currency, the choice is most likely the U.S. dollar, and thus, is a convincing argument against the leading role of the euro as compared to the U.S. dollar. Further support to this finding is provided when the euro denominated imports are used as the dependent variable.

Second, in an additional set of estimations, the author tests the home currency invoicing hypothesis, as she tests the extent to which exports are denominated in a country's own currency. The empirical estimations again show that being part or candidate for the EU increases home currency export invoicing by around 15 percentage points. Another interesting result of Kamp's analysis is that the market power hypothesis with respect to the country's share in world's exports is supported. In other words, the higher the share of a country's exports in world exports, the more likely it is to invoice in its own currency. The author argues that this result is an indication of the market power provided by the inclusion in a monetary union. This is complemented by the positive and significant impact that the introduction of the euro has on home invoicing. She also finds that the share of differentiated products has a positive influence on home currency invoicing exports.

Finally, in a third set of estimations, the market power of the importing country in setting the invoicing currency is being estimated. The market power of the importer has a significantly positive influence on importer's home currency invoicing in all estimations. In other words, the higher the market power of the domestic economy (the share of country's total exports to worlds exports) the more likely it is that this country's imports are invoiced in the importer's home currency.

In an effort to study the determinants of invoicing share of the euro across countries, Lai and Yu (2015) extend the dataset offered by Kamps (2005) in order to include a wider period of coverage (1999-2010) together with an updated country dimension of 35 economies. Their research question is concentrated on the invoicing share of the euro in the annual imports or exports of a country at aggregate level. According to their results, the share of Eurozone in a country's total trade has a strongly positive effect on use of the euro in export invoicing by a country.

In detail, it contributes in explaining more than 60 per cent of the cross-country and intertemporal variation in the euro's share in export invoicing. In addition, the authors report that EU members use the euro more widely and the hedging motive seems not as important in magnitude, albeit statistically significant. Lastly, in this group of estimations Lai and Lu (2015) exhibit evidence that: i) the use of the euro is increasing over time due to an increasing contribution of smaller countries, ii) the effect of the differential in foreign exchange transaction cost is insignificant in explaining invoicing currency choice (calculated by the median difference between the bid-ask spread of the euro and the dollar on the local currency each year), and (iii) patterns are similar when euro invoicing in imports is examined.

Microeconomic studies Goldberg & Tille (2008)

In an empirical research setting, Goldberg & Tille (2008) explore the major driving forces for currency invoicing in international trade. They construct a dataset covering 24 countries and, although they mainly focus on relevant implications for the US, they offer insights on the use of the euro and possible obstacles in its invoicing practices. The authors present a number of stylised facts, namely: i) around one third of the exports from the euro area countries to the USA are invoiced in US dollars, where the same figure is almost 40% for the imports; ii) 40% to 50% of the extra euro area exports by EMU members are invoiced in euros; iii) the US dollar is typically the lowest transaction cost currency in foreign–exchange markets³.

Their empirical estimations provide evidence that the size of the exporting country (relative to the whole euro area) explains around thirty percent of the selection of the euro as invoicing currency. They also find that the more homogeneous the goods⁴ being exported to the euro area the higher the likelihood that it will not be invoiced in euros.

Martin & Mejean (2012)

³ The authors' proxy transaction costs in foreign–exchange markets by the pattern of bid-ask spreads for three currencies (US dollars, the euro and the pound) for the 1995-2007 period using monthly data. In detail, the basis point spreads between bid and ask exchange rates are divided by the average of these two rates and then ranked in order to indicate transaction costs by currency pair and over time.

⁴ Following Rauch (1999), the authors define a good as being homogenous is a homogeneous good that

nonetheless does not have a substantial enough volume to have an "official" market (e.g. some chemical products), but that because of its homogeneity does have "reference" prices that are published in trade magazines.

Using a survey-based dataset Martin and Mejean (2012) examine the effect of firm size and financial hedging against exchange rate risk on the currencies used in international trade transactions. The authors rely on a 2008 survey of around 3,000 exporting firms, from five Eurozone countries. Their data provides a unique insight in the invoicing currency choices since they are weighted by firm size and thus reveal micro heterogeneity. Their stylised facts offer an interesting multidimensional picture of the choice of currency invoicing, often contradicting theoretical studies. Specifically, on the currency invoicing choice they report that the vast majority of firms set their export prices in euro (from 88% in Austria to 95% in France). Second, large firms, both in terms of turnover and total exports, invoice less in euro. Third, results are very similar across countries with only little cross-country variation in the invoicing behavior of firms.

In addition, the authors present a number of facts related to the geography, industry and competition characteristics of their surveyed firms. First, they concentrate on industry characteristics and argue that there is a strong heterogeneity across sectors. For example, the textile and leather industry is reportedly using the euro less as an invoicing currency. Second, they investigate the hypothesis that firms tend to adopt the invoicing currency of their competitors, i.e. large firms decide to adopt the currency of their competitors in order to limit adverse competitive effects of exchange rate fluctuations. They find no significant effect of the origin of the competitor on the use of producer's currency in invoicing.

In their empirical section, Martin & Mejean (2012) utilise a probit model to further test the above set of hypotheses. They provide the following results. First, larger firms – both in terms of turnover and number of employees – are less likely to price in Euro. In particular, firms with a high turnover (> €50 million) present statistically significant and negative relation with the choice of euro as invoicing currency. This results holds for firms that are more export oriented, i.e. firms exporting are less likely to use euro as an invoicing currency. Second, their estimations reveal that exporting firms to Asia and in America are likely to choose the respective local currency for their invoicing (LCP). This behavior is confirmed for firms that are part of multinational groups and, thus have the ability to manage exchange rate exposure through operational hedging. Third, when prices are determined by the markets, as opposed to producers, they will rather be denominated in a currency other than the euro, that is probably the dollar.

Finally, Martin & Mejean empirically estimate the relation between hedging and currency choice. Their findings indicate that: i) firms that hedge against exchange rate risk or use derivatives are less likely to use euro as their invoicing currency; ii) the likelihood of not invoicing in euro increases when trade credit is used and iii) trade insurance and the quality of the organizational structure of the firm do not exhibit a relation with the choice of currency invoicing.

2.4 Concluding remarks

This section provides an overview of available statistics together with theoretical and empirical studies on the role of the euro in international trade and possible obstacles for using the euro in trade pricing and settlement. The analytical categorisation of the determinants and obstacles to the use of the euro in international trade available in the literature provides the necessary knowledge and understanding for the empirical analysis (survey), which is an integral part of the overall study. In short, the survey investigates the validity of the available drivers and obstacles in the present era and consider additional policy related ones, with an emphasis on sector specific findings.

Despite the global dominance of the US dollar as a vehicle currency, its central role in foreign exchange and commodity markets and in trade financing, the share of euro invoicing in international trade is sizeable: two thirds of exports from European firms to countries outside the euro area are priced in euro (firm-level data, see Martin & Mejean, 2012). When considering the same figure for euro area firms (firm-level data), the share is even higher at around 90% of firms. These data raise the question whether there is actually effective scope for a further increase in the share of euro invoicing and whether there are any major general obstacles to the use of the euro in international trade.

However, the use of the euro may be less prevalent in specific markets or sectors. Theory suggests that markets of homogenous goods tend to be dominated by a vehicle currency (USD) while exporters of differentiated goods have more pricing power in their home currency. Also large firms tend to use the euro less in international trade. More detailed analysis on disaggregated and sector specific level is very scarce due to data limitations with very little sectoral data available on trade invoicing currencies. Also as regards currency information on trade destination or origin of exports and imports (bilateral trade statistics) few (survey-based) data sources are available.

With regard to the drivers and possible obstacles to the use of the euro in international trade, the theoretical and empirical literature points to: (i) product market structure and competition aspects; (ii) trading partner characteristics (e.g. proximity, currency regime, relative size); and (iii) financial market infrastructure (e.g. foreign exchange transactions costs, availability of trade credit and hedging instruments).

Further empirical work is required to determine to what extent euro area/EU firms across key industries experience any obstacles to the use of the euro and what drives them towards other currency choices. How important is the limited availability of trade credit in euro? And what is the role of foreign exchange transaction costs, as not every currency pair is traded against the euro requiring most transactions to cross through US dollar. Relatedly, the role of the availability and costs of exchange risk hedging instruments deserves attention. Beyond the scope of this study, these issues also relate to the role of the dollar and the euro as a vehicle currency, as they may affect network externalities and economies of scope that play a role in the inertia of the dominance across different international currency functions. As stated above, the determinants and obstacles for invoicing in euro are investigated in the empirical (survey) part of this study.

3. Survey design

This section presents the design and implementation of the specialized survey conducted in order to map practices in invoicing, pricing and settlement and to analyse the main determinants and obstacles for using the euro in international trade. The survey has two dimensions - a quantitative and a qualitative one.

The quantitative survey is conducted by the independent company "TNS opinion" (TNS) at the request of the European Commission, Directorate-General for Economic and Financial Affairs and is coordinated by the European Commission, Directorate-General for Communication through the framework contract used for the Flash Eurobarometer. The qualitative survey is performed by the JRC. The questionnaires used for both surveys are designed by the JRC in consultations with DG ECFIN and they reflect findings from the related literature (e.g. what drives the choice of currencies in trade invoicing, possible obstacles etc.).

The qualitative survey combines in-depth interviews and a questionnaire. The qualitative questionnaire requires mainly detailed open-ended answers, while in the quantitative questionnaire specific answers were required. Also, the qualitative survey targeted large firms while the quantitative medium and small sized ones. The justification for performing two different types of surveys is to reveal various aspects related to the use of the euro in international trade. For example large companies might face different obstacles to the use of the euro in international trade than smaller firms and their views on the issue could be different.

3.1 Questionnaire design

The questionnaire used for the quantitative and the qualitative survey is divided into two parts. The first part addresses general questions about firms' financial data and exporting behavior. The second part focuses on questions related to possible obstacles⁵. A quick overview of the issues covered in the questionnaire is given below.

The first part focuses on questions related to the firm's profile, trade practices and invoicing behavior. In particular firms are asked to:

- 1) Indicate the share of their exports/imports as a percentage of their turnover.
- 2) Indicate the percentage of their exports/imports to the Eurozone, to rest of the EU28 countries and to the rest of the world.
- 3) Indicate the percentage of their exports/imports to their intra-group partners and the main currency used for their intra-group exports/imports.
- 4) Quote their largest exporting/importing markets.
- 5) Give an approximation for the shares of the currencies used for their exports/imports.

⁵ Please refer to Appendix B and Appendix C where the qualitative and the quantitative questionnaires are provided, respectively.

- 6) Indicate their premier currency for pricing, invoicing and settlement and specify whether there is a difference between the currency used in the final trade settlement and the intermediate trade settlement.
- 7) Finally, firms are asked if trade invoicing of exports and imports in euro with partners outside the euro area is beneficial for their company.

The second part addresses questions related to obstacles. In particular firms are asked to:

- 1) Identify the reasons for using currencies other than the euro (e.g. competition, specific sector characteristics).
- 2) Indicate which party in their industry has the strongest bargaining power (e.g. the importer, the exporter, the largest company).
- 3) Report whether there are any legal/regulatory and accounting obstacles or international payment infrastructure restrictions hindering the use of the euro in international trade in the selected sector.
- 4) Provide information on how they address exchange rate risk and the availability of financial instruments and their related cost.
- 5) Indicate how important are various factors when choosing the Euro as their invoicing currency (e.g. the transaction size, the delivery time, the exchange rate volatility of the euro etc.)
- 6) Finally, firms are asked to provide some more explanation on what should change in order for them to start using the euro more.

The main difference among the two surveys is that through the qualitative survey more detailed answers are provided as most of the questions are open-ended. This is due to the nature of the Flash Eurobarometer surveys with few open ended questions and specified responses which are optional and rather quick.

3.2 Sector selection

On the basis of the mandate given by the Eurogroup and by taking into account the largest exporting EU industries, the following sectors have been identified for the survey: (i) the aircraft, (ii) the energy (oil, gas, coal), (iii) the financial services, (iv) the electrical engineering, and (v) the mechanical engineering industries (see Table 3.1 for a ranking of the industries with the largest exporting values across the EU).

All products	3,935,784,292
Machinery, nuclear reactors, boilers, etc.	545,508,673
Vehicles other than railway, tramway	407,009,142
Mineral fuels, oils, distillation products, etc.	310,257,525
Electrical, electronic equipment	291,811,484
Pharmaceutical products	234,340,579
Plastics and articles thereof	161,006,072
Optical, photo, technical, medical, etc. apparatus	139,368,079
Pearls, precious stones, metals, coins, etc.	131,463,727
Organic chemicals	128,643,529
Aircraft, spacecraft, and parts thereof	104,782,160
Iron and steel	99,851,189
Source: International Trade Centre (2015) ⁶	

Note: At two digits level HS4 and thousands of euro.

3.3 Firms Selection

The quantitative survey, is conducted through the Eurobarometer framework, thus firms are selected from the TNS's database that mostly covers medium-sized companies. Given the constrained timeframe and resources to conduct the study, the survey covered four EU member-states namely Germany, France, Italy and the UK (only for the financial sector).

For selecting the firms for the qualitative survey the source is the Bureau van Dijk commercial ORBIS database that contains information on over 170 million companies worldwide. The methodology as regards the selection of the firms for each sector includes the following points:

- I. The firm must be registered in a euro area country.
- II. Only non-consolidated accounts are chosen: Group-level consolidated accounts are excluded as it is not always clear how to account for imports/exports at consolidated level of subsidiaries in different countries. For example, assuming that a German company has a US subsidiary that buys and sells goods in USD it is not clear whether the purchase/sale in US is treated as an import/export of goods. Moreover, due to consolidation issues it is not evident how a company deals with intra-group foreign currency denominated transactions.
- III. The 25 firms with the highest operating revenue are then selected.
- IV. Government companies are included in the list.
- V. When two or more firms have the same ultimate owner, only the largest one in terms of turnover is selected, irrespective of the country location. This is especially relevant in oil/gas and aircraft industries.

An exception to the above is the selection of firms for the financial services sector where sub-sectors are selected in a discretionary manner. The final list for the financial sector includes: (i) Advisory firms (ii) Tax consultancies (iii) Rating agencies (iv) Clearing Houses and (v) Financial leasing. For the financial leasing and the clearing houses firms the methodology that is applied to the other sectors is followed (see points (i)-(iv) above). Given the importance of players outside the EU on transactions, the scope also covers the UK. For the other 3 categories (advisory firms, rating agencies, tax consultancies)

⁶ <u>http://www.intracen.org/itc/market-info-tools/trade-statistics,</u> accessed 6/11/2015.

leading firms of the sector are selected. For the financial sector the questionnaire is adequately adjusted to better reflect the terminology used among financial services companies. For example the term "exports" is replaced with the term "services provided" while the term "imports" is replaced with the term "services provided" while the term "imports" is replaced with the term "services received". Additionally, for the UK the questions had to be adequately adjusted.

3.4 Survey execution

The quantitative survey was exclusively conducted by TNS. They prepared a translated questionnaire for each country and interviews were performed in the mother tongue of each firm. The survey was conducted between July 20th and August 7th, 2015. The methodology used was that of Eurobarometer surveys which are performed by the Directorate-General for Communication ("Strategy, Corporate Communication Actions and Eurobarometer" Unit)^{7.}

Table 3.2 provides an overview of the number of companies that were contacted. The response rate across countries was very low (2% for Germany, 3% for France and Italy, 1% for UK), in line with the response rate with the qualitative survey.

Table 3.2. Number of companies contacted.										
	Co	ntacted	compan	ies			Resp	onses		
	DE	FR	IT	UK	Total	DE	FR	IT	UK	Total
Total	4399	2582	2791	7675	17447	100	100	100	100	400
Aircraft/shipbuilding	93	376	417	-	886	0	0	1	-	1
Energy	758	81	221	-	1060	6	1	0	-	7
Electrical/mechanical engineering	2050	957	1432	-	4439	89	96	97	-	282
Financial services	1498	1168	721	7675	11062	5	3	2	100	110

Source: TNS and authors calculations

Given that the response rate in some categories was too low, the survey does not allow for a detailed comparison of responses between different industries. Despite the big size of some industries (e.g. aircraft, shipbuilding and energy), companies tend to be relatively large, and hence the number of companies is small. An important criterion was the requirement for the company to be engaged in trade outside the Euro area, making it challenging to achieve a large sample size. As a result the sample of responses is highly dominated by the electrical and mechanical engineering sector.

In order to ensure the validity and reliability of the survey responses we tested *ex ante* the representation of our sample with the respect to the total number of firms per country and related sector. Specifically, following the technical annex provided by TNS, the total number of firms active in one of the four industries (refereed as the universe) and the corresponding firms that are both active in one of the four industries and also export outside the euro area (referred as the estimated universe) are presented in Table 3.3 below. Their estimates are based on the results of a sampled survey entitled

⁷ <u>http://ec.europa.eu/public_opinion/index_en.htm</u>

"Flash EB 347 Business to Business Alternative Dispute Resolution in the EU"⁸. Please note that according to this survey on average 3% of the firms are exporting outside the euro area.

	Table 3.3. Estimations on the num	mber of companies
	Universe	Estimated Universe
Germany	121,161	3,635
France	36,408	1,820
Italy	71,009	1,420
United Kingdom	37,987	1,140
Courses TNC		

Source: TNS

We examine the representation of our sample in the electrical and mechanical industry as the majority of our responses are concentrated in the specific industry. In Table 3.4 the number of firms (in percentages) according to their size (number of employees) are presented according to the structural business statistics available by Eurostat together with their respective percentages in the TNS survey. As we can observe, the sample we use for our estimations represents to a good degree, the overall classification of the firms according to their size in the three countries of our interest.

Table	3.4. Numb	er of compa	nies in the ele	ctrical and	mechanical i	ndustry
	Structural	Business Statis	tics (Eurostat)	Euro Survey (TNS)		
	DE	FR	IT	DE	FR	IT
1-49 employees	67.8%	75.2%	79%	57.3%	72.9%	87.7%
50-249 employees	12.1%	12.9%	11.2%	29.2%	22.9%	8.3%
250+ employees	21.3%	11.9%	9.7%	13.4%	4.23%	4.1%

Notes: Structural Business Statistics refer to the total number of firms per country, available by Eurostat (<u>http://ec.europa.eu/eurostat/web/structural-business-statistics/data/database</u>)

The qualitative survey was exclusively conducted by the JRC by directly contacting the selected firms. For conducting the survey the JRC set up a protocol with all the steps to be followed when contacting each firm: As a first step the questionnaire was sent by an email to the selected firms. In order to increase the response rate, JRC followed up by telephone calls shortly after the emails were sent in order to ensure that the emails were received by the correct contact, identifying the contact person and seeking commitment to reply. If firms were reluctant to commit to filling in the questionnaire, an appointment for a short phone call / interview on the issue was requested instead.

Throughout the implementation of the survey many challenges were encountered. Contacting the selected firms was not always easy. For example, in many instances the targeted company's contact details belonged to a group with entities in various locations and no correspondence could be established through the parent company. Also, follow-up calls to the managers did not result in

Source: Eurostat, TNS and authors calculations.

⁸ See Question D3 in the report available <u>http://ec.europa.eu/public_opinion/flash/fl_347_en.pdf</u>

commitment from the company's side to participate to the survey or they clearly declared that it is the company's policy not to participate in surveys.

Given that the substantial time and effort in selecting contacting and engaging firms did not result in many replies or commitments, the next step was to collaborate with the respective associations to engage the firms. The associations contacted were: (i) AeroSpace and Defence Industries Association of Europe (ASD) (aircraft sector) (ii) Euracoal (energy sector) (iii) FuelsEurope (energy sector) (iv) Eurogas (energy sector) (v) Orgalime (electrical and mechanical engineering sector) (vi) Digitaleurope (electrical engineering). In more details, the associations were asked to contribute by:

- (i) Circulating the questionnaire to their member firms and national associations and encourage participation.
- (ii) Arrange an appointment with the Director General to discuss these issues.

In many instances associations could not offer any input regarding the use of the euro, the possible obstacles or the companies' pricing and invoicing strategy, as these competition related matters were not subject of their mandate. Regarding disseminating the questionnaires, associations were keen to forward them to their members and to national associations. Directly and indirectly several hundred major firms were contacted. Overall, the qualitative survey covered in-depth engagement with 20 large firms and associations, complemented by the replies to the open-ended questions of the quantitative survey (described more detailed below).

4. Empirical analysis of the quantitative survey results

This section provides the empirical findings of this study, based on the quantitative survey on the role of the euro as an invoicing currency in international trade. The aim of this analysis is to deepen the understanding of the micro aspects of the use of the euro in international trade invoicing and/or settlement in the current period. It includes a subsection on the data used, a brief description of the empirical methodology and, finally, the empirical estimations. The latter offers a number of interesting results on choices firms make and their behavior in terms of their invoicing strategy in international trade.

4.1. Data

Below we provide some descriptive statistics for the sample of companies under study. From Table 4.1 it is concluded that 73% for the EU sample and 81% for the UK sample have less than 50 full time employees. Moreover, almost 43% of the EU firms reported an annual turnover above 2,000,000 (last fiscal year), while the same figure for the UK firms is 25%.

Table 4.1. Descriptive statistics for the sample of companies					
Full time employees					
	EU sample	UK sample			
1-9	26%	61%			
10-49	47%	20%			
50-249	19%	13%			
250-499	5%	1%			
More than 500	2%	2%			
DK/NA	0%	3%			
Turnover in the last fiscal year					
	EU sample	UK sample			
Less than 100,000	1%	9%			
100,000-500,000	4%	21%			
500,000-2,000,000	21%	9%			
>2,000,000	43%	25%			
DK/NA	29%	36%			

Source: TNS and authors calculations Note: DK/NA denotes "Don't know / No answer"

In order to investigate the exporting behavior and the possible obstacles that firms face when using the euro as an invoicing currency, we provide a number of charts containing statistics for some of the answers received. A detailed presentation of the overall responses is given in Appendix D (provided by TNS). The descriptive statistics and figures below exclude financial services sector.

Figure 4.1 presents the distribution of the firms' share of exports that is invoiced in euros. Almost 70% of the firms exclusively use the euro for trade invoicing, while only 15% of the firms use the euro in less than 50% of their exports. In other words, the euro is widely used by European firms in their invoicing practices in international trade. Firms were also asked to declare whether they consider

trade invoicing of exports and imports in euro with partners outside the euro area being beneficial to their company.⁹ Among the firms that invoice in euro a substantial amount (75%-100%) of their exports 53% of them declared that they believe that the use of the euro for export trade invoicing is very beneficial. On the other hand, among the firms that invoice in euro smaller amounts (less than 50%) of their exports 36% of them declared that the use of the euro for export trade invoicing is very beneficial.



Figure 4.1: Distribution of the firms' share of exports invoiced in euros

Source: TNS and authors calculations *Note:* Number of companies is 261

Regarding the geographical destinations of their exports, firms were asked to declare their three largest exporting countries outside the euro area and the results are presented in Figure 4.2. As expected many firms declared that they export to the US (32%), followed by China (23%). Russia (13%) and Switzerland (12%) are also important exporting destinations.

⁹ Specifically, firms responded to the following question: "Would you say that trade invoicing of exports and imports in euro with partners outside the euro area is beneficial for your company" on a scale 1 (not all beneficial) to 5 (very beneficial) (see Q6 available in Appendix C). Very beneficial corresponds to scales 4 and 5.



Figure 4.2: Largest exporting countries outside the euro area

Source: TNS and authors calculations *Note:* Number of companies is 261. Multiple answers could be provided. DK/NA denotes "Don't know / No answer".

Moreover firms which do not exclusively use the euro¹⁰ for their trade invoicing were asked to declare the three most common currencies used as an alternative to the euro for their trade invoicing (see Figure 4.3). As expected the US dollar is the dominant currency used by the firms in our sample. The other currencies do not seem to be often used for invoicing.



Figure 4.3 Currencies other than the euro used for exports invoicing.

Source: TNS and authors calculations *Note:* Number of companies is 88. Multiple answers could be provided. DK/NA denotes "Don't know / No answer".

¹⁰ The number of firms that declared that they use the euro exclusively for their export invoicing is 173 out of 261.

Figure 4.4 presents a first descriptive analysis of factors that might affect the use of a currency other than the euro for export invoicing. The number of firms replying to these questions drops to 83, as most firms that responded to the survey only invoice in euro. Of the firms that do invoice in other currencies, almost 50% indicated that the recipient country is large and that is the currency used there, while nearly 30% replied that this is due to exchange risk management issues. Finally, more than 20% indicated that this is due to exchange risk management issues. Finally, more than 20% of the 83 respondent companies indicated accounting reasons, 27% selected regulatory and legal reasons, while 23% suggested international payment infrastructure restrictions (home or abroad). Finally, only 13% noted the availability of trade credit. Please note that the above figures rely on small number of observations, so they should be read with caution.



Figure 4.4: Factors affecting the choice of currencies other than the euro for export invoicing

Note: Number of companies is 83. Multiple answers could be provided. DK/NA denotes "Don't know /No answer".

Source: TNS and authors calculations



Source: TNS and authors calculations

Note: Number of companies is 75. Multiple answers could be provided. DK/NA denotes "Don't know / No answer".

4.2. Empirical Methodology

Our empirical methodology is based on empirical literature that uses surveys to research the choice of currency in international trade (see among others Friberg and Wilander, 2008; Ligthart and Werner, 2012). The aim of this sub-section is thus to econometrically assess what determines the use of the euro in international trade and to identify any associated obstacles. Specifically, based on a specification offered by Kamps (2005), we proceed by estimating an ordered probit model, since our dependent variable belongs to 5 categories. In detail, we utilise the following specification:

$$y_i^* = a + \beta X_i' + u_i$$
 (1)

where, y_i^* is the latent (dependent) variable which is the share of exports invoiced in euro. It belongs to 5 observed categories where:

<u> </u>	corresponds to 0%
2	corresponds to below 26%
3	corresponds between 26%-50%
4	corresponds between 51%-75%
5	corresponds between 76%-100%
	1 2 3 4 5

In addition, *i* represents the firms, β is a set of coefficients, X'_i is a set of explanatory variables and u_i is the firm specific error term. The complete set of all the explanatory variables used is available in Appendix E.

4.3 Empirical Estimations
As specified above, the empirical strategy pursued will provide detailed estimates for the firms and the respective sectors that the database covers, as well as a more disaggregated approach in order to unveil industry–specific characteristics of the invoicing behavior of firms. Specifically, these subsections include: i) estimates with the exception of financial firms ii) mechanical engineering industry estimates, iii) electrical engineering industry estimates, iv) financial firms estimates (limited to UK firms only).

4.3.1 Estimates from all the industries

...larger companies are likely to export less in euro, in line with the empirical literature.

Following Martin & Mejean (2012), the size and the turnover of firms enter our regressions in an initial effort to study their relationship with the share of exports invoiced in euros (see column 1, Table 4.2). As our empirics rely on ordered probit regressions, they explain the likelihood that the firms invoice their exports in euro. Note that the empirical estimations provided correspond to an ordered probit model and thus the magnitude of the coefficient(s) cannot be interpreted in the same manner as in a linear regression. According to our empirics, the size of the firms (measured in terms of employment) has a negative and statistical significant effect in the share of exports invoiced in euro. In other words, larger companies are more likely not to use euro as their main currency. This finding confirms prior expectations as well as related literature (see Martin & Mejean, 2012). The turnover variable has a positive effect in the share of exports invoiced in euro as their main currency.

	(1)	(2)	(3)	(4)	(5)	(6)
Employment	-0.001***	-0.001**	-0.001**	-0.000	-0.000	-0.000
	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Turnover	0.315**	0.251	-	-	-	-
	(0.153)	(0.154)				
Exports	-	0.178*	0.137	-	0.164	0.281*
		(0.100)	(0.107)		(0.121)	(0.151)
Imports	-	-0.088	-0.219	-	0.017	0.027
		(0.114)	(0.139)		(0.125)	(0.159)
Exports extra-euro	-	-	-0.170	-	-	-0.236*
			(0.104)			(0.141)
Imports extra-euro	-	-	-0.032	-	-	-0.050
			(0.094)			(0.133)
Exports intra group	-	-	-	-0.270***	-0.341***	-0.289**
				(0.099)	(0.121)	(0.131)
Observations	185	181	175	115	112	86

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that in column 6 the number of observations is rather low, so results should be interpreted with caution.

In the same manner, the turnover from exports and imports enter the regression (see column 2, Table 4.2). For the remaining part of our analysis the size of firm is controlled through the employment variable. Our empirics reveal that only the exports related variable has an effect on the share of exports invoiced in euro, implying that firms that gain a substantial percentage of their turnover from exports are more likely to use euro as their main currency. Note that in this estimation the size of the company maintains its significance where the turnover variable does not. In turn, exports and imports outside the euro area (as a percentage of the respective exports and imports) are included in the regressions (see column 3, Table 4.2). According to our empirics no association between exports outside the euro area and euro invoiced exports is found.

In an attempt to further investigate the possible effects of intra-group trading, relevant exports of this type are added to our estimation. Empirics reveal that the higher the intra-group exports the less likely firms are to invoice in euros (see column 4, Table 4.2). When the same variable is estimated conditioned with the exports and imports as well as the exports and imports outside the euro area, the estimated effect is once more present (see column 5 & 6, respectively in Table 4.2).

...firms exporting to Switzerland and Turkey are more likely to invoice in euro, while the contrary holds for the USA.

In addition, Table 4.3 presents estimations which include information on the location of the trading partners, in terms of country of residence. Specifically, locations enter our regression in a step-wise manner, in order to avoid any possible collinearity issues (Haitovsky, 1969). Note that all major countries are included in our estimation but for brevity only significant estimations are presented. ¹¹ A positive association is estimated when Switzerland and Turkey are indicated as the destination of the exports (see columns 1-2, respectively in Table 4.3). In other words, firms exporting to Switzerland or Turkey are more likely to use euro as their invoicing currency. However, firms exporting to the USA (column 3) are less likely to invoice in euro. This evidence is in line with prior theoretical and empirical findings offered by the literature regarding the size of the exporters market (see Section 2.2).

...firms which invoice in euro find it beneficial in their international trade activities

Table 4.3 also presents a number of factors that according to the literature influence the choice of the invoicing currency. First, we examine the possible effect of settling exports and imports in the same or different currencies (see column 4, Table 4.3). Our empirics present no statistical significance of the latter variable. Note that 81% of the firms reported that they use the same currency for exports and imports settlement. Furthermore, the perception of firms on how beneficial euro is with respect to trade invoicing is examined next.¹² In the same manner, a positive and significant relation between

¹¹ Please refer to Appendix E for a complete list of all the currencies and trading countries.

¹² As stated above, firms responded to the following question: "Would you say that trade invoicing of exports and imports in euro with partners outside the euro area is beneficial for your company" on a scale 1 (not all beneficial) to 5 (very beneficial) (see Q6 available in Appendix C). For the empirical analysis, very beneficial corresponds to scales 4 and 5.

the perception of the beneficial nature of euro trade invoicing and a firms actual invoicing in euros is estimated (see column 5, Table 4.3).

	(1)	(2)	(3)	(4)	(5)
Employment	-0.001**	-0.001***	-0.001***	-0.001***	-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
Switzerland	0.960**	-	-	-	-
	(0.476)				
Turkey	-	4.348***	-	-	-
		(0.204)			
USA	-	-	-0.608***	-	-
			(0.175)		
Settlement	-	-	-	-0.110	-
				(0.311)	
Euro beneficial	-	-	-	-	0.410**
					(0.192)
Observations	257	257	257	178	235

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively.

...sector characteristics present a negative association with exports invoiced in euro.

Next, we introduce different theoretical determinants of invoicing behavior originating from the literature. Specifically, four different factors that could possibly affect the choice of a currency other than the euro are included, namely: i) the recipient country is large and, so, it is the currency used there; ii) competitors use other currencies; iii) sector characteristics (e.g. this is the dominant currency used for the specific product worldwide), and iv) exchange risk management reasons (see columns 1-4, respectively in Table 4.4). Relevant empirics show that only specific sector characteristics are (negatively) associated with exports invoiced in euros (column 3). This is probably due to the dominance of an alternative currency that is used worldwide, possibly the US dollar. The above results rely on a small number of observations, so should be interpreted with caution.

Complementary to the above, firms were asked to report who has the largest bargaining power in setting the invoicing currency. Interestingly, firms indicating that the exporter has the setting power are more likely to use euro as their invoicing currency, while when the importer was specified they were less likely to invoice in euro (see columns 5 and 6 in Table 4.4 respectively). The latter evidence supports the validity of the responses received for this survey and the respective econometric results. Finally, the theoretical perspective that when setting the invoicing currency the larger company has the bargaining power is not confirmed by our empirics, as no statistical significance is present (column 7 in the same Table).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Employment	-0.000	-0.000	-0.000	-0.000	-0.001***	-0.001**	-0.001***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)
Large recipient	-0.053						
	(0.261)						
Competitors	-	-0.452	-	-	-	-	-
		(0.336)					
Sector	-	-	-0.736**	-	-	-	-
			(0.300)				
Exchange risk mgt	-	-	-	-0.227	-	-	-
				(0.268)			
Exporter	-	-	-	-	0.820***	-	-
					(0.211)		
Importer	-	-	-	-	-	-0.676***	-
						(0.213)	
Largest company	-	-	-	-	-	-	-0.198
							(0.219)
Observations	83	83	83	83	234	234	234

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that in columns 1-4 the number of observations is rather low, so results should be interpreted with caution.

...weak evidence on the possible obstacles on the use of the euro as an invoicing currency

The next set of questions are concentrated on the obstacles that firms face and thus choose a currency other than the euro in their invoicing practices (see Table 4.5). In short, a number of such possible obstacles were included, namely regulatory or legal, accounting, trade credit availability and the international payment infrastructure restrictions. According to the empirical estimation, only the regulatory or legal reasons presented a statistical significance with the euro invoiced exports (column 1, Table 4.5). This finding implies – to a limited extent – that if the company reports regulatory or legal obstacles, it is likely to invoice less in euro. The number of responses received for this set of questions is rather low, so results should be interpreted with caution. The other reasons do not present any statistical significance with the amount of euro denominated exports (see columns 2-4).

	(1)	(2)	(3)	(4)
Employment	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Regulatory	-0.703**	-	-	-
	(0.282)			
Accounting	-	-0.238	-	-
		(0.279)		
Trade credit	-	-	-0.268	-
			(0.338)	
Payment infrastructure	-	-	-	-0.316
				(0.270)
Observations	83	83	83	83

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that the number of observations is rather low, so results should be interpreted with caution.

...trade-related characteristics and macroeconomic factors have no impact on euro denominated exports.

In a different set of questions we investigate the relation between the choice of the euro and specific trade related characteristics and a number of macroeconomic environment factors. Specifically, transaction size and the contract duration and its delivery time are regressed in order to investigate their impact in currency choice (see Table 4.6 below, columns 1 & 2). The empirical findings present no association between the use of the euro in trade invoicing and the size of the transaction or the duration of the contract. In the same manner, firms reported the importance of economic environment related factors in their choice of the euro as an invoicing currency, that is the exchange rate volatility of the euro, the interest rates and macroeconomic shocks. None of the above factors appear to have a significant effect on euro invoiced exports (columns 3, in Table 4.6).

	(1)	(2)	(3)	(4)	(5)
Employment	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Transaction size	0.034	-	-	-	-
	(0.063)				
Duration	-	-0.013	-	-	-
		(0.062)			
Euro volatility	-	-	-0.056	-	
			(0.065)		
Interest rates	-	-	-	-0.043	-
				(0.065)	
Macro shocks	-	-	-	-	-0.018
					(0.069)
Observations	234	244	239	233	220

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively.

Finally, Table 4.7 offers the results on the estimates of two specialised set of questions: first, the utilisation of hedging instruments by firms in order to address exchange rate risk and, second, the possible effect of the recent sovereign debt crisis on the use of the euro in in international trade. In the exchange risk management empirics, no statistical significance between their risk management measures and the use of the euro was found (column 1). Furthermore, firms that do not address exchange risk management were also found not to present any correlation with the use of the euro due to the non-availability of hedging instruments (column 2) or due to the cost of the hedging instruments (column 3). Firm's invoicing practices appear not to be affected by the European sovereign debt crisis (column 4). Once more, this specific set of questions received a rather small amount of responses, so results should be read with caution.

	(1)	(2)	(3)	(4)
Employment	-0.000	-0.002	-0.001***	-0.001
	(0.001)	(0.002)	(0.000)	(0.002)
Exchange risk measures	0.174	-	-	-
	(0.267)			
Hedging instruments	-	0.421	-	-
		(0.619)		
Hedging costly	-	-	0.385	-
			(0.398)	
Crisis	-	-	-	-0.093
				(0.076)
Observations	77	34	34	248

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that in columns 1-3 the number of observations is rather low, so results should be interpreted with caution.

4.3.2 Mechanical engineering industry

...estimations reveal little differentiation.

The empirical estimations performed on mechanical engineering firms are identical to the ones described on the previous section and, thus provide once again a picture of the behavior of the specific firms with regards to their invoicing patterns in international trade. Overall we can infer that results are qualitatively the same, with the addition of a few novel findings. Please note a number of selected estimations are offered below, while the rest are presented in Appendix F1.

In detail, both the size and the turnover of mechanical engineering firms appear to have a statistically significant effect in the share of exports invoiced in euro (see column 1, Table 4.8). The exports related variable however is not found to have significant effect on exports denominated in euros (see column 2, Table 4.8). Exports outside the euro area are estimated to have a negative impact on the use of the euro in invoicing, in line with previous estimates (columns 4 & 6).

	(1)	(2)	(3)	(4)	(5)	(6)
Employment	-0.002**	-0.002*	-0.002*	-0.000	0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Turnover	0.392*	0.354*	-	-	-	-
	(0.208)	(0.210)				
Exports	-	0.112	0.173	-	0.046	0.226
		(0.135)	(0.143)		(0.161)	(0.209)
Imports	-	-0.146	-0.266	-	0.023	-0.081
		(0.137)	(0.166)		(0.144)	(0.184)
Exports extra-euro	-	-	-0.238*	-	-	-0.369*
			(0.127)			(0.193)
Imports extra-euro	-	-	0.114	-	-	0.180
			(0.122)			(0.224)
Exports intra group	-	-	-	-0.358***	-0.399**	-0.241
				(0.132)	(0.159)	(0.166)
Observations	128	125	117	79	78	60

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that in columns 4-6 the number of observations is rather low, so results should be interpreted with caution.

With respect to the invoicing determinants originating from the literature, our estimates reveal that no statistical significance in presence (see Table 4.9, columns 1-4). Please note that in our previous estimations the sector characteristics were found to have a negative sign, implying that firms are less likely to invoice less in euros. In the mechanical engineering industry this effect is not present. This finding is in line with the findings of the qualitative surveys reported in the previous section.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Employment	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Large recipient	-0.416	-	-	-	-	-	-
	(0.307)						
Competitors	-	-0.385	-	-	-	-	-
		(0.384)					
Sector	-	-	-0.227	-	-	-	-
			(0.376)				
Exchange risk mgt	-	-	-	-0.293	-	-	-
				(0.343)			
Exporter	-	-	-	-	0.890***	-	-
					(0.260)		
Importer	-	-	-	-	-	-0.719***	-
						(0.267)	
Largest company	-	-	-	-	-	-	-0.195
- • •							(0.268)
Observations	58	58	58	58	156	156	156

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that in column 1-4 the number of observations is rather low, so results should be interpreted with caution.

An interesting finding is that when companies in the mechanical engineering sector report accounting as well as regulatory obstacles to invoicing in euro, they are more likely to invoice less in euro (see columns 2 and 1, respectively in Table 4.10). The number of responses received for this set of questions is rather low, (58) so results should be interpreted with caution.

	(1)	(2)	(3)	(4)
Employment	-0.001	-0.000	-0.001	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Regulatory	-0.981***	-	-	-
	(0.354)			
Accounting	-	-0.707*	-	-
		(0.389)		
Trade credit	-	-	-0.113	-
			(0.457)	
Payment infrastructure	-	-	-	-0.438
-				(0.370)
Observations	58	58	58	58

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that the number of observations is rather low, so results should be interpreted with caution.

4.3.3 Electrical engineering industry

In line with the previous estimations, the findings of the sub-set of firms that are active in the electrical engineering industry provide little differentiation with respect to the overall results.¹³ Specifically, the turnover variable provides no evidence on its correlation with exports invoiced in euros, which is a finding that is not present in the previous estimations (see columns 1 and 2 in Table 4.11).

¹³ The rest of the empirical estimations are provided in Appendix F2.

	(1)	(2)	(3)	(4)	(5)	(6)
Employment	-0.001	-0.002*	-0.002	0.000	-0.001	0.001
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)
Turnover	0.312	0.405	-	-	-	-
	(0.351)	(0.367)				
Exports	-	0.499*	0.194	-	0.171	0.204
		(0.268)	(0.219)		(0.324)	(0.334)
Imports	-	-0.062	-0.349	-	-0.099	-0.447
		(0.407)	(0.370)		(0.462)	(0.692)
Exports extra-euro	-	-	-0.038	-	-	-0.732
			(0.274)			(0.600)
Imports extra-euro	-	-	-0.122	-	-	0.535
			(0.175)			(0.430)
Exports intra group	-	-	-	-0.094	-0.111	-0.244
				(0.231)	(0.247)	(0.223)
Observations	43	42	45	30	28	23

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. . Please note that the number of observations is rather low, so results should be interpreted with caution.

	(1)	(2)	(3)	(4)	(5)
Employment	-0.001	-0.001	-0.001	-0.001*	-0.001*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Switzerland	0.235	-	-	-	-
	(0.557)				
Turkey	-	4.367***	-	-	-
		(0.439)			
USA	-	-	-0.813**	-	-
			(0.344)		
Settlement	-	-	-	-0.066	-
				(0.522)	
Euro beneficial	-	-	-	-	0.587
					(0.367)
Observations	63	63	63	50	59

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. . Please note that the number of observations is rather low, so results should be interpreted with caution.

When we include different theoretical determinants of invoicing behavior originating from the literature, our empirical estimations provide evidence that only the sector characteristics are negatively related to the exports invoiced in euros (see column 3, Table 4.13). This result is in line with the estimates of our full sample findings.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Employment	-0.000	-0.000	-0.000	-0.000	-0.001**	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Large recipient	0.785	-	-	-	-	-	-
	(0.692)						
Competitors	-	-1.245	-	-	-	-	-
		(0.983)					
Sector	-	-	-1.710***	-	-	-	-
			(0.611)				
Exchange risk mgt	-	-	-	-0.301	-	-	-
				(0.604)			
Exporter	-	-	-	-	1.133**	-	-
					(0.531)		
Importer	-	-	-	-	-	-0.761*	-
						(0.452)	
Largest company	-	-	-	-	-	-	-0.063
							(0.477)
Observations	22	22	22	22	61	61	61

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. . Please note that the number of observations is low, so results should be interpreted with caution.

Finally, when we concentrated on the obstacles that firms encounter in their invoicing practices, no statistically significant estimates were found (see Table 4.14 below). This result does not confirm previous findings which reported that regulatory or legal issues are likely to have a negative effect on exports invoiced in euros (full sample estimates), with the addition of accounting issues in the mechanical engineering firms.

	(1)	(2)	(3)	(4)
Employment	0.000	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Regulatory	-0.477	-	-	-
	(0.581)			
Accounting	-	0.475	-	-
		(0.499)		
Trade credit	-	-	-0.658	-
			(0.624)	
Payment infrastructure	-	-	-	-0.548
-				(0.377)
Observations	22	22	22	22

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that the number of observations is rather low, so results should be interpreted with caution.

4.3.4 Financial industry

As indicated above, the financial industry estimates are concentrated on evidence originating from firm resident in the United Kingdom. From the baseline estimation we can infer that larger companies – in terms of employment – tend to invoice more in euros in their international activities, possibly in

order to accommodate overseas transactions (see columns 1-6, Table 4.15 below).¹⁴ Also a positive association is estimated regarding the turnover from imports and the use of the euro in international trade (see column 2, Table 4.15).

	(1)	(2)	(3)	(4)	(5)	(6)
Employment	0.383**	0.000***	0.024***	0.003**	0.004**	0.021***
	(0.163)	(0.000)	(0.005)	(0.002)	(0.002)	(0.006)
Turnover	0.003	0.002	-	-	-	-
	(0.002)	(0.002)				
Exports	-	0.128	0.395	-	0.038	0.751**
		(0.205)	(0.257)		(0.208)	(0.314)
Imports	-	0.527*	-0.139	-	0.494*	-0.753
		(0.280)	(0.327)		(0.268)	(0.512)
Exports extra-euro	-	-	0.311	-	-	0.453**
			(0.225)			(0.229)
Imports extra-euro	-	-	0.584**	-	-	0.614**
			(0.243)			(0.283)
Exports intra group	-	-		0.435**	0.365**	0.254
				(0.192)	(0.167)	(0.451)
Observations	62	62	32	63	62	25

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that the number of observations is rather low, so results should be interpreted with caution.

Finally, empirical estimates on the possible obstacles on the use of the euro provide no evidence from the side of financial firms resident in the UK.

	(1)	(2)	(3)	(4)
Employment	0.004**	0.004*	0.004	0.004*
	(0.002)	(0.002)	(0.002)	(0.002)
Regulatory	0.481	-	-	-
	(0.327)			
Accounting	-	-0.470	-	-
		(0.301)		
Trade credit	-	-	0.370	-
			(0.454)	
Payment infrastructure	-	-	-	0.406
-				(0.326)
Observations	98	98	98	98

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively. Please note that the number of observations is rather low, so results should be interpreted with caution.

¹⁴ The rest of the empirical estimations are provided in Appendix F3.

4.4 Concluding remarks

Summarizing our findings, according to the quantitative survey we can conclude that the euro is widely used by European firms in the engineering and financial services sectors in their invoicing practices in international trade. About eight out of ten of the surveyed companies in the euro area say that 76-100% of their export invoices are in euros. Over a quarter of UK companies invoice at least some of their customers in euros. Given the limited number of survey responses in the aircraft and the energy sectors, no conclusions could be drawn on the use of the euro in their international trade activities.

In addition, a number of interesting findings are obtained from the empirical analysis. First, large firms are less likely to invoice their exports in euro. Second, firms that believe that euro is beneficial for their international trade activities indeed use it more for their exports. Third, our empirical estimations present limited evidence on possible obstacles on the use of the euro in international trade (possible regulatory and legal obstacles).

5. Qualitative survey results

This section presents findings on the role of euro as an invoicing currency in international trade based on the qualitative survey that was conducted by the JRC. It combines information from in-depth interviews and replies to qualitative questionnaires from the European associations of the respective industries as well as leading firms active in the sectors considered. Evidence from open-ended questions from the quantitative survey conducted by TNS, are included were relevant. The section is divided in four sub-sections corresponding to the respective industries. Participation to the survey differed across industries with the aerospace sector best represented.

5.1 Aircraft industry

The information below summarises key elements of written comments, meetings and interviews with leading European firms active in the industry and the secretariat and members of the AeroSpace and Defence Industries Association of Europe (ASD).¹⁵

All representatives of the aircraft and aerospace industry confirmed that virtually all invoicing is in US dollars for civil transactions. A leading firm in the sector confirmed that less than 1% of their sales is in euros. Firms reported that even transactions within the euro area with European clients are generally in US dollars.

None of the interviewees saw much benefit or scope to change the US dollar dominance in their sector. It is the established dominant currency in the sector due to historical reasons and the important linkages of the aircraft industry with the oil market. They also explained that 80% of the sector sales are outside Europe. And clients' revenues - including of airline companies based in the EU - are mainly in USD. Also a significant part of their costs is in US dollar (fuels). Also the secondary market, aircraft insurance and maintenance is priced in US dollars. If the European aircraft companies would invoice more in euro, they would push exchange rate risk to their clients, which they consider not possible from a commercial perspective in a market with mainly US competitors.

Budget EU airlines are the exception as they have mostly euro revenues. But even for these airlines, the aircraft sector prices in US dollars, as the aircraft market is a global market and does not allow regional price-differentiation. While pricing is in US dollar, some trade is invoiced in euro and British pound. According to a leading firm, in some cases in which it is in the interest of the client transactions can be in euro even though the contracts are priced in US dollar. Actual payments are taking place in euros using a mutually agreed exchange rate providing a natural hedge for both counterparts.

The interviewed firms also underlined the importance of exchange rate risk. Overall, interviewed firms are satisfied with the use of the US dollar in their activities, as necessary hedging instruments are available in the markets and various hedging strategies can be pursued. Most firms hold very large hedging portfolios. In case of large exchange rate fluctuations the long-term hedging positions could lead to credit and exposure constraints. In particular if the euro depreciates sharply, the value of the hedging position can turn strongly negative exceeding credit facility limits. Until now, banks have in

¹⁵ ASD provided important support to the survey by engaging their members and inviting JRC staff for a presentation and discussion at an ASD members meeting.

such cases increased their credit lines, but one interviewee suggested that this might not be the case in a future sectoral or global slowdown.

Part of the exchange rate risks is addressed by pushing down exchange rate risk to suppliers requiring US dollar pricing in all supplies. While hedging was generally unproblematic to the major firms, SMEs do not have similar access to hedging as they are generally credit constrained and need to use their credit lines for investments and working capital rather than hedging. "For SMEs exchange rate risk is a nightmare" one representative said. Without being asked, representatives from two major companies independently from each other suggested that a government supported facility to enable access to hedging for SMEs would be in the public interest.

One firm noted that exchange rate risk played some role but was not the major factor in the decision to move production facilities outside the euro area.

Firms reported that they in general do not encounter problems accessing trade credit, except for 2010 when EU banks suffered US dollar shortages. At the time non-EU banks quickly stepped in.

Overall, firms active in the industry believed that there is no scope for significantly raising the share of the use of the euro in the sector for the reasons described above. From a commercial perspective they had not much interest in the study therefore. Sector representatives did note however increasing concerns about the use of US dollar in - what they called - "sensitive countries" (e.g. Iran, Russia) in which sanctions apply and difference in sanction regimes between in particular the US and the EU exist or may arise in the near future. There were important business opportunities for the sector. But European banks are very reluctant to engage in any activities that might involve transactions in these countries, even if companies demonstrated that they complied with sanction law, or if all EU sanctions were to be lifted. Banks' unwillingness allegedly originated from the fact that due to specific sanctions imposed by the USA, any payment made in US dollars has to be compliant with US laws as clearance is made through the FED. Even if most of the transactions could potentially be in euro, some aspects could involve US dollars, raising uncertainty on US extra-territorial jurisdiction. One major firm noted that a European bank was asking for certificates that even companies used for the intermediate products were also compliant with the US laws in order to proceed with any payments. Another company reported on a transaction in a "sensitive country" that was fully in euro, for which they had all clearances of compliance from their government and they had made priced and invoiced in euro. No major bank was willing to clear the transaction. Aircraft industry representatives suggest that the unwillingness of banks to engage in activities in "sensitive countries" seems to be due to this uncertainty on sanction regimes – and differences across sanction regimes. They considered it a rather important concern for some companies, but not necessarily for the sector as whole as it concerned a small number of (large) deals.

Sector representatives noted that the military aviation market is very different from the civil aviation one as the clients are governments which have a very different profile. In military aviation, European clients are generally priced in euros, while for non-European ones mostly in US dollars. This can be extended to the space and satellite industry, where the market is very limited.

Regarding any obstacles that firms might face when invoicing in euros, firms reported that there aren't any regulatory, legal or accounting issues. The main concern expressed by the firms was the difficulties

they encountered when involving banks in the payment process for transactions in "sensitive countries".

5.2 Electrical and mechanical engineering

In order to gather information from the electrical and mechanical engineering industries the European associations of the sector and the leading companies were contacted. The associations interviewed were: i) Orgalime, which is the mechanical, electrical, electronic and metal articles industries association, and ii) Digitaleurope, which is the Information, Communications and Telecommunications (ICT) association.

Firm participation in the survey was very low. The industry association replied to our multiple requests that "*My understanding is that there are no particular problems when using the euro for international transactions. I guess that this is one of the reasons that we did not receive further input from our members.*"

Also the feedback on the open questions of the quantitative survey indicates that firms in this sector are not concerned by possible obstacles to the use of the euro in international trade. A response provided by a number of firms that used currencies other than the euro was that the client imposes the invoicing currency. No specific obstacles to the use of the euro were raised.

5.3 Energy

The energy sector includes a number of related products and thus several associations had to be contacted. Specifically, we contacted the following European associations: i) Euracoal, for the coal subsector, ii) Eurogas, for the gas industry, and iii) FuelsEurope for the petroleum refineries companies. Although the associations actively encouraged their members to participate in the survey by replying to the qualitative surveys or engaging on an in-depth interview few positive responses were received. In a further attempt to engage the firms in the completion of the surveys, one of the associations agreed to personally contact the leading firms in the industry, but once more very few responses were obtained.

The interviews and questionnaires indicate that in the refinery/petroleum industry mainly operates in US dollars, not only in Europe but also globally. The reason is that global commodity and energy markets are traditionally US dollar dominated. And in a normal fuel product the crude oil represents 80-90% of production costs. An exception to the above is the local trade transactions that concerns biofuels, where the euro could occasionally be used. According to the association, there is little scope for increasing the use of the euro invoicing in the market. Any change from the dominance of the US dollar with respect to the pricing and invoicing of the industry would probably be a political issue in which governments of oil-producing countries had an important say. According to sector representatives, this also explains the low response rate in the qualitative survey.

5.4 Financial services

The financial industry includes the following sub-sectors: (i) advisory firms, (ii) tax consultancies, (iii) rating agencies, (iv) clearing houses, and (v) financial leasing. Few firms provided input to the qualitative survey.

From the open questions of the quantitative survey, a number of interesting responses on the use of the euro in international invoicing were provided. Please note that the specific industry was covered in the aforementioned survey using UK based firms only. Specifically, the response provided by a number of firms indicated they invoice in euros on the request mainly of the client. In line with the above, they also answered that they are willing to invoice in euros, given that they attract more clients from the Eurozone. Moreover, many firms indicated that they would use the euro more provided that it was less volatile and more stable.

5.5 Concluding remarks

Invoicing in euro is limited in a number of sectors due to industry specific characteristics and the dominance of US dollar. For example the aircraft and the energy industry are largely invoicing in US dollar in their international trade activities. Our survey across major industries and the associations suggests that the limited use of the euro in these sectors is not related to possible obstacles for the use of the euro in international trade. In the other sectors the euro is widely used by European firms in their invoicing practices in international trade.

6. Conclusions

This study provides an analysis of the main determinants and obstacles for using the euro in international trade. It includes a literature review and draws empirical findings from the specialized surveys that where conducted.

The euro is widely used by European firms in their invoicing practices in international trade. The surveys find that the use of other currencies in most cases does not relate to obstacles to the use of the euro in international trade. While the findings are based on a limited number of sectors and surveys with low response rates, they are in line with related studies. The aircraft and energy sectors in which the US dollar is the main invoicing currency are notable exceptions to the extensive use of the euro. Also in these sectors firms reported no obstacles to the use of the euro as other – sector-specific - factors drive the currency choice.

Companies indicate in the surveys and interviews that they use currencies other than the euro mainly due to: (1) client preference, (2) the dominant role of the US dollar globally, which serves as a vehicle currency in international finance, (3) natural hedging by matching cash flows, (4) bank and forex transaction costs.

Of the surveyed firms in the mechanical and electrical engineering sectors that invoice in other currencies and that report on obstacles, a small minority of companies mentions accounting issues; regulatory and legal obstacles; and international payment infrastructure restrictions. No specifics on the potential obstacles could be identified through open-ended survey questions or interviews. Also, the empirical estimations do not find significant evidence that obstacles to the use of the euro play a role in the choice for other currencies in international trade.

An important caveat to the interpretation of the survey results is the low response rate obtained in both the quantitative and the qualitative components. For the quantitative survey more than 17000 companies were contacted with a response rate of 2.3% or a total of 400 responses. The qualitative survey yielded a similarly low response rate. A possible explanation for the low response rates, as suggested by the results obtained in the survey, is that most of the EU companies mostly use the euro for their exports i.e. they do not consider a survey on obstacles relevant for their business. This result was also confirmed by some of the industry associations.

In summary, European firms mostly use the euro in their invoicing practices in international trade. While there may be some obstacles at micro-level that cause some companies to reduce their use of the euro, there is no evidence of widespread concerns in any sector. Sometimes firms prefer to use the US dollar due its role as a global financing and vehicle currency. Sound macroeconomic policies, the deepening of the EU Economic and Monetary Union, and the development of the Capital Markets Union, will all contribute to further strengthening the role of the euro on the global trade and finance markets.

Beyond the scope of this study, leading firms indicated the need for providing to small and medium enterprises access to hedging instruments in order to accommodate their trade transactions in foreign (non-euro) currencies, and reduce their vulnerability to exchange rate fluctuations. In addition, some

firms suggested that a clear and transparent framework on applicable sanction regimes would reduce uncertainty and trade obstacles in transactions with "sensitive countries".

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Study	Country(ies)	Data	Empirical Methodology	Main Findings
Kamps (2005), ECB Working Paper Series	World sample (incl. Eurozone & EU)	Annual (1994-2004)	Prais-Winston panel regressions	 Being part of or a candidate for the EU increases euro export/import invoicing. Euro is not widespread as a vehicle currency in third countries, The higher the share of a country's exports in world exports, the more likely it is to invoice in its own currency, i.e. indication of the market power provided by the inclusion in a monetary union. Positive impact of the introduction of the euro on home currency invoicing. Limited impact of the monetary union on import invoicing in euro. The higher the market power of an economy, the more likely it is that this country's imports are invoiced in the home currency.
Goldberg & Tille (2008), Journal of Int'l Economics	World sample (incl. Eurozone & EU)	Annual (unbalanced panel)	Ordinary Least Squares	 40% to 50% of the extra euro area exports by EMU members are invoiced in euros, The US dollar is typically the lowest transaction cost currency in foreign–exchange markets Large euro area countries invoice more in euro. Invoicing in euro is explained by around 30% by the size of the exporting country (relative to the euro area). The more homogeneous the exported goods to the euro area the higher the likelihood that these good will not be invoiced in euros.
Lai & Yu (2015), The World Economy	World sample (incl. Eurozone & EU)	Annual (unbalanced panel, mainly 1999-2010)	Ordinary Least Squares	 The share of Eurozone in a country's total trade has a strongly positive effect on euro export invoicing, as it contributes in explaining more than 60% of the cross-country and intertemporal variation in the euro's share in export invoicing. Non-euro area EU MS use the euro more than non-EU countries. The hedging motive seems not very important in magnitude, albeit statistically significant. The use of the euro is increasing over time due to an increasing contribution of smaller countries Differences in transaction cost are insignificant in explaining invoicing currency choice. Similar patterns when euro invoicing in imports is examined.
Martin & Mejean (2012), CEPII Working Paper	EU countries (Austria, France, Germany, Italy & Spain)	Questioner based Survey (2010)	Probit regression	 The vast majority of firms set their export prices in euro (from 88% in Austria to 95% in France). Large firms – both in terms of turnover and total exports – use relatively less the euro as an invoicing currency.

Appendix A. Empirical studies of individual countries and industries

				 Overall, there is a small cross-country variation on the invoicing behavior of firms. Companies exporting to the EU invoice more in their own (local) currency (0.96) when compared to those who export to North America (0.85), Asia (0.86) or the Rest of the world (0.84). Strong heterogeneity across sectors, i.e., the textile and leather industry is reported to rely less on euro as an invoicing currency, although nearly 88% of the industry's exports are euro denominated. Larger firms – both in terms of turnover and number of employees – are less likely to price in Euro. Firms that are part of a multinational group manage exchange rate exposure through operational hedging. When prices are determined by the markets – as opposed to producers – (i.e. homogenous goods, commodities) they will rather be denominated in a currency other than the euro, that is probably the dollar. Firms that hedge against exchange rate risk or use derivatives are less likely to use euro as their invoicing currency. The likelihood of not invoicing in euro increases when trade credit is used by firms
Ligthart & Werner (2012), Journal of Int'l Money & Finance	Norway	Quarterly (1996-2006)	Fixed effects	 Increased invoicing in euros in the Norwegian market after its introduction Euro has overtaken US dollar as a vehicle country in Norwegian imports Drop of inflation volatility has some influence on producer currency invoicing towards Norwegian market
Donnenfeld & Haug (2007), Int'l Journal of Finance & Economics	USA	Monthly (1996:08- 1998:07)	Multinomial logit model	 Share in world trade and relative size of the country (GNP) do not have a significant effect on invoicing patterns. Exchange rate risk and distance have a positive and significant impact on invoicing in the importers currency. Exchange rate pass-through elasticity is negatively related to invoicing in the importer's currency
Goldberg & Tille (2014), Federal Reserve Bank of New York, Staff Reports	Canada	Trade Transactions (2002:2-2009:2)	Multinomial logit model	 More homogeneous goods are more likely to be invoiced in the local or vehicle currencies instead of the exporters' currencies. Imports from countries with exchange rates that are more volatile (i.e. Canadian dollar) show more use of local and vehicle currency pricing. Imports from countries that have a relative high volume of foreign exchange transactions between their currency and the US dollar use more local and vehicle currency pricing Higher importer concentration in an industry (i.e. bargaining power) raises the use of both local and vehicle currency pricing. Importer heterogeneity shifts invoicing towards producer currency pricing

				 Large transaction are associated with less use of the producers' pricing and more with local and vehicle pricing. Exporters from countries with relatively volatile exchange rates use their own currency to a lesser degree in international trade transactions. Exports from countries with currency pegs to the US dollar are more likely to be invoiced in US dollars, while producer currency pricing is stronger among Eurozone exporters.
lto et al. (2010)	Japan	Questioner based Survey (2007 & 2008)	Probit estimation	 The larger the hedging cost is, the less the importer's currency is used for trade invoicing. Intra-firm trade facilitates importer's currency invoicing. The degree of export competitiveness negatively affects the extent of importer's currency invoicing. So, the importer's currency is used as an invoice currency if export products are less differentiated or not competitive in the destination market.
Friberg & Wilander (2008)	Sweden	Questioner based Survey (2006)	Descriptive statistics and mean ranking	 For the majority of exports, the price, the invoice and settlement are denominated in the same currency. The currency of the customer is the most used, both for trade within and across company groups. For large export markets and large orders the price is set in the currency of the customer. The currency choice of competitors is not a central concern for most firms. The expected development of the exchange rate matters little for currency choice. The set of financial instruments available in a currency and costs of exchanging currency are not deemed to be important for the currency choice. Smaller exporters are more likely to use home currency (Swedish kronor) as their main currency for exports.
Oi, Otani & Shirota (2004)	Japan	Survey based	Correlation analysis	• Japanese yen more often used in industries with differentiated products, such as the automobile industry.
Silva (2004)	Netherlands	Bilateral flow data	Panel data – extended GLS	 Inflation in partner country increases the likelihood of invoicing in Dutch guilder. High share of a country in world exports increases the likelihood that the country's currency is used. Financial development increases the likelihood of pricing in the currency of the country undergoing financial development.

Appendix B. Qualitative Questionnaire



SURVEY

THE INTERNATIONAL ROLE OF EURO

Notes and Instructions

- This survey is conducted by the European Commission.
- The aim of the survey is to identify possible obstacles to the use of the Euro in international trade. More information can be found <u>here</u>.
- Please answer the questions below reflecting the position of your company and not the group of companies that you might belong to or its consolidated accounts.
- A comprehensive glossary is attached at the end of the file.
- The answers and the results obtained from this survey will be treated with confidentiality. No answers referring to individual firms/companies will be revealed.
- Please send the filled-in questionnaire to eurosurvey@jrc.ec.europa.eu by

We thank you for your contribution which is highly appreciated by the European Commission.

For any queries please contact us at:

Email: eurosurvey@jrc.ec.europa.eu

Phone: Tel. (+39) 0332 789746/789803

Company Name:

Country of Incorporation:

Company NACE code:

Date of filling out:

Contact Details of Person filling out the Questionnaire:

Name:	
Job Title:	
Email:	

General questions

1. Please indicate the **share of your exports and imports** as a percentage of your turnover (latest available year; before tax): (*Please tick only 1 box*)

Year:

Exports	Imports
□ 0-25%	□ 0-25%
□ 25%-50%	□ 25%-50%
□ 50%-75%	□ 50%-75%
□ 75%-100%	□ 75%-100%

Please add any comment:

2. What percentage of your exports/imports are:

Exports	Imports	
Within the Eurozone: % of exports.	Within the Eurozone: % of imports.	
Rest of EU28 countries: % of exports.	Rest of EU28 countries: % of imports.	
Rest of the world: % of exports.	Rest of the world: % of imports.	

3. What percentage of your exports/imports are intra-group?

Exports	Imports
□ N/A (I do not belong to a group)	□ N/A (I do not belong to a group)
□ 0-25%	□ 0-25%
□ 25%-50%	□ 25%-50%
□ 50%-75%	□ 50%-75%
□ 75%-100%	□ 75%-100%

Which is the **main currency** used in your **intra-group exports**:

Which is the main currency used in your intra-group imports:

Please add any comment:

4. Which are your largest exporting and importing markets:

Outside the Eurozone	Outside the EU28	
Exports:	Exports:	
Imports:	Imports:	

Please add any comment:

5. Which is the premier global currency for international trade in your industry/sector?

Please add any comment:

6. Which is your premier currency?

7. What are the shares (approximately) of your **exports/imports invoiced in Euro**, **USD**, **GBP**, **JPY**, **CHF**, **RMB and other currencies**?

	Exports		Imports
Euro:	% of exports.	Euro:	% of imports.
USD:	% of exports.	USD:	% of imports.
GBP:	% of exports.	GBP:	% of imports.
JPY:	% of exports.	JPY:	% of imports.
CHF:	% of exports.	CHF:	% of imports.
RMB:	% of exports.	RMB:	% of imports.
Other:	% of exports.	Other:	% imports.

Please add any comment:

8. Is there a difference between the currency used in the **final trade settlement** (final good/service) and the **main intermediate trade settlement** (purchase of goods/services necessary for the production of the final good/service)?

	□ YES			
If YES please specify:				
Please add any comment:				

9. Do you consider **invoicing in Euro advantageous**? (please indicate from 1 (least important) to 5 (most important)):

□1	□2		□4	
		-•		_ •

Questions on obstacles regarding using Euro as an invoicing currency

10. What is the main reason for trade invoicing in a currency other than the Euro?

.

Please add any comment:

- 11. Please indicate which of the following reasons play a role in the choice of the **invoicing in a currency other than the Euro**? (*you may tick more than 1 box*):
 - □ In order to penetrate/establish relations within a market.
 - Because this is necessary due to local competition in the local currency.
 - Because it is a large country and this is the currency used there.
 - Because this is the dominant currency used for the specific product worldwide.
 - □ Because this is the dominant currency used in the secondary market (for used and leased goods) in the industry/sector.
 - □ In order to limit the fluctuations versus competitors of your price in the respective good/service.
 - □ In order to limit the fluctuations of my profit margin because most of my expenses are in the non-Euro currency.
 - □ In order to match existing liabilities denominated in currencies other than the euro with revenue denominated in the same currency.
 - □ Other

- 12. In your industry/sector who has the strongest bargaining power in setting the invoicing currency : (*Please tick only 1 box*)
 - □ The importer
 - □ The exporter
 - □ The larger company
 - \Box Depends case by case
 - \Box N/A

		□ YES			
	If YES please specify:				
14.	Do you invoice in a foreign currer	ncy for any accoun	ting issues?		
		□ YES			
	If YES please specify:				
15.	Do you address exchange rate	risks in your intern	ational trade activities? (Please tick only 1 box)		
		□ YES			
	If YES please specify how you deal with exchange rate risks:				
	If NO because: No hedging instruments are and They are too costly Other (Please specify:	vailable)			
16.	Are there any international payr currency other than the Euro? (<i>Example: You do business with a</i> <i>you cannot clear transactions in C</i>	nent infrastructur a Chinese compan Chinese RMB.)	e restrictions (at home or abroad) which force you to use a y and you invoice in a third country vehicle currency because		

13. Do you invoice in a foreign currency for any regulatory or legal issues (in your or your client's home country)?

	□ YES	
If YES please specify:		

17. Are there any other trade practices not allowing you to set the Euro as an invoicing currency?

□ YES □ NO

If YES please specify:

18. How important are the following factors when choosing Euro as your invoicing currency? (please indicate from 1 (least important) to 5 (most important)):

The transaction size	□1	□ 2	□3	□4
□ 5				
The delivery time (short term/long term)	□ 1	□ 2	□ 3	□4
□ 5				
Its exchange rate volatility	□ 1	□ 2	□ 3	□4
□ 5				
The interest rates	□ 1	□ 2	□3	□4
□ 5				
Recent macroeconomic shocks	□ 1	□ 2	□3	□ 4
Other (Please comment:)				

Please add any comment:

19. What should change in order for you to start using the Euro more in international trade?

GLOSSARY

Exchange rate risk: the risk that the return on an investment may be reduced or eliminated because of a change in the exchange rate of two currencies.

Final trade settlement: the payments made for the sale of the final good or service produced by your company.

Intermediate trade settlement: the payments made for the purchase of goods and services necessary for the production of the final goods or services offered by your company.

NACE code: statistical classification of economic activities in the European Community (Nomenclature statistique des activités économiques dans la Communauté européenne).

Trade practice: a competition method, operating policy (as the use of standards of size, shape, and quality of materials), or business procedure common to members of a line of business or industry.

Vehicle currency: the currency used to invoice an international trade transaction, especially when it is not the national currency of either the importer or the exporter.

Appendix C. Quantitative Questionnaire



TNS opinion

8-10, Rue Jules Cockx - 1160 Brussels T.: +32 2 66 17 200 - F.: +32 2 66 17 250 E: havk.ovuzelvan@tne-opinion.com - http://www.tne-opinion.com

Questionnaire Possible obstacles to using the euro in international trade 9-07-2015 Version 7 – Final

<u>Target:</u> companies with one or more employees, trading with partners outside the euro area, operating in the following industry sectors (defined with NACE codes):

Aircraft and Shipbuilding: C 30 Manufacture of other transport equipment

Energy: B Mining and quarrying C 19 Manufacture of coke and refined petroleum products D Electricity, gas, steam and air conditioning supply

Electrical and Mechanical Engineering: C 27 Manufacture of electrical equipment C 28 Manufacture of machinery and equipment

Financial Services: K 66.1.1. Administration of financial markets K 66.1.2. Security and commodity contracts brokerage K 66.1.9. Other activities auxiliary to financial services, except insurance and pension funding M 69.2. Accounting, bookkeeping and auditing activities; tax consultancy

<u>Coverage</u>: The survey should cover companies in Italy, France and Germany across all above-mentioned industry sectors which are involved in international trade with partners outside the euro area. In addition, the survey should cover companies in the UK in the sector of Financial Services as detailed above, which are engaged in trade with partners inside the euro area or the EU, or with partners outside the EU.

Total question units: 20.5 QU.

Two duplicated questionnaires follow for the financial sector in IT, FR and DE, and the financial sector in the UK, respectively. They reflect a slightly different terminology as to match the specificity of the industry and the countries.

DK = don't know/no answer - always spontaneous (OUR COUNTRY) will be replace by the name of the country in each country SPLIT BALLOT¹:

¹ A Split Ballot is a procedure where a sample is divided into two halves and each receives a slightly different questionnaire – ESOMAR definition

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 1 -





TNS opinion

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Socio-economic section

D1	Could you confirm that your company operates in the [enter sector description from sample] sector? (ONE ANSWER ONLY)	
	Yes No DK/NA	1 2 3
1 QU (not counted)	NEW	
STOP I	NTERVIEW IF CODE 2 OR 3 IN D1	
D2	In which country is your company registered (for trade and financial reporting)? (READ OUT - ONE ANSWER ONLY)	
	France Germany Italy United Kingdom Other DK/NA	1 2 3 4 5 6
1 QU (not counted)	NEW	
STOP I	NTERVIEW IF CODE 5 (OTHER) OR CODE 6 (DK/NA)	
D3	How many full-time employees did your company have in the la fiscal year? Please state the number of employees in your lega entity, not at the group level. (READ OUT - ONE ANSWER ONLY)	ast I
	1 to 9 employees 10 to 49 employees 50 to 249 employees 250 to 499 employees 500 or more employees DK/NA	1 2 3 4 5 6
1 QU (not counted)	NEW	
D4	What was the turnover of your company in the last fiscal year? Please state the turnover in your legal entity, not at the group level.	,
	DK/NA/REF	999
1 QU (not	NEW	

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 2 -

otamoir.



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counted)

Could you please estimate the share of your exports as a percentage of turnover in the last fiscal year or latest available year, before tax? (READ OUT - ONE ANSWER ONLY) D5

> None 1 2 3 4 5 6 Below 26% 26%-50% 51%-75% 76%-100% DK/NA

1 QU (not counted) NEW

ASK D6 IF CODES 2 TO 5 IN D5

SPLIT BALLOT - FR, DE, IT ONLY

D6	And approximately what percentage of your exports went outside the euro area in the last fiscal year or latest available year, before tax? (READ OUT - ONE ANSWER ONLY)	
	None Belaw 26% 26%-50% 51%-75% 76%-100% DK/NA	1 2 3 4 5 6
1 QU (not counted)	NEW	
SPLIT E D6	ALLOT - UK ONLY And approximately what percentage of your exports went to the euro area in the last fiscal year or latest available year, before tax? (READ OUT - ONE ANSWER ONLY)	2
	None Below 26% 26%-50% 51%-75% 76%-100% DK/NA	1 2 3 4 5 6
1 QU (not counted)	NEW	

Questionnaire « Possible obstacles for using the euro in international trade» - DG ECFIN - 3 -





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ASK ALL

D7	Could you please estimate the share of your imports as a percentage of turnover in the last fiscal year or latest available
	year, before tax? (READ OUT - ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
DK/NA	6
NEW	

1 QU (not counted)

ASK D8 IF CODES 2 TO 5 IN D7

SPLIT BALLOT - FR, DE, IT ONLY

D8	And approximately what percentage of imports came from outside the euro area in the last fiscal year or latest available year, before tax? (READ OUT - ONE ANSWER ONLY)	
	None Below 26% 26%-50% 51%-75% 76%-100% DK/NA	1 2 3 4 5 6
(not counted)	NEW	
SPLIT B D8	ALLOT – UK ONLY And approximately what percentage of imports came from the euro area in the last fiscal year or latest available year, before tax? (READ OUT – ONE ANSWER ONLY)	
	None Below 26% 26%-50% 51%-75% 76%-100% DK/NA	1 2 3 4 5 6

Questionnaire « Possible obstacles for using the euro in international trade» - DG ECFIN - 4 -





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IF NACE CODES IN AIRCRAFT AND SHIPBUILDING, ENERGY, ELECTRICAL AND MECHANICAL ENGINEERING (AS DEFINED) - CONTINUE INTERVIEW

STOP INTERVIEW IF CODE 1 at D5 or CODE 1 at D6 AND CODE 1 at D7 or CODE 1 at D8

IF NACE CODES IN FINANCIAL SEVICES (K and M) (AS DEFINED) - CONTINUE INTERVIEW

Questionnaire « Possible obstacles for using the euro in international trade» - DG ECFIN - 5 -




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QUESTIONNAIRE - FOR AIRCRAFT AND SHIPBUILDING, ENERGY, ELECTRICAL AND MECHANICAL ENGINEERING (AS DEFINED)

Q1 Could you please estimate what percentage of your exports are intra-group in the last fiscal year or latest available year, before tax? (READ OUT - ONE ANSWER ONLY)

> None Below 26% 26%-50% 51%-75% 76%-100% Your company does not belong to a group DK/NA

1

23

4 5 6

7

1 QU NEW

ASK Q2, Q3 and Q4 IF CODES 2 TO 6 IN D6 IF CODE 1 IN D6, GO TO Q6

Q2 Which are your three largest exporting countries outside the euro area, as measured by value? (DO NOT READ OUT - MAX. 3 ANSWERS)

OPEN-ENDED QUESTION WITH A PRE-CODED LIST AS BELOW

United Kinadom	1.
Poland	2
Denmark	3
Czech Republic	4.
Sweden	5,
Hungary	6,
Any other EU countries	7,
United States	8,
Switzerland	9,
China	10,
Russia	11,
Turkey	12,
Japan	13,
Any other non-EU countries	14,
Your company does not export outside the euro area	15
DK/NA	16

2 QU NEW

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 6 -





1 QU

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Q3 What approximate share of your exports is invoiced in euro? (READ OUT – ONE ANSWER ONLY)

None Below 26% 26%-50% 51%-75% 76%-100% DK/NA	1 2 3 4 5
DK/NA	6
NEW	

Q4 In which currencies other than the euro do you invoice your exports? (DO NOT READ OUT - MAX. 3 ANSWERS)

OPEN-ENDED QUESTION WITH A PRE-CODED LIST AS BELOW

U.S. Dollar	1,
British Pound	2,
Japanese Yen	з,
Swiss Franc	4,
Chinese Renminbi	5,
Canadian Dollar	6,
Danish Krona	7,
Swedish Krona	8,
Korean Won	9,
Indian Rupee	10,
Brazilian Real	11,
Russian Rouble	12,
Turkish Lira	13,
Other	14,
Your company does not invoice its exports in other currencies	15
DK/NA	16

2 QU NEW

1 QU

ASK Q5 IF CODES 2 TO 6 IN D6 AND CODES 2 TO 6 IN D7

Q5 Is the main currency that you use to settle your exports the same as the main currency that you use to settle your import purchases from outside the euro area? (READ OUT - ONE ANSWER ONLY)

Yes	1
No	2
Does not apply to your company (SPONTANEOUS)	3
DK/NA	4
NEW	

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 7 -





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Q6 Would you say that trade invoicing of exports and imports in euro with partners outside the euro area is beneficial for your company? Please indicate from 1 (not at all beneficial) to 5 (very beneficial): (READ OUT - ONE ANSWER ONLY)

1 Not at all beneficial 5 Very beneficial				DK/NA	
1	2	3	4	5	6

1 QU NEW

1 QU

QUESTIONS ON OBSTACLES TO USING THE EURO AS AN INVOICING CURRENCY - FOR AIRCRAFT AND SHIPBUILDING, ENERGY, ELECTRICAL AND MECHANICAL ENGINEERING (AS DEFINED)

ASK Q7 IF CODES 1 TO 14 IN Q4 OTHERS GO TO Q8

Q7	We would like to understand why you use currencies other than the euro for export invoicing. Do any of these factors play a role in your choice of currencies other than the euro for export invoicing? (READ OUT - MULTIPLE ANSWERS POSSIBLE)					
	The recipient country is large and this is the currency used there Competitors use other currencies and your company has to keep up with them	1, 2,				
	Sector characteristics - e.g. this is the dominant currency used for the specific product worldwide	з,				
	Exchange risk management Other (PLEASE SPECIFY) DK/NA	4, 5, 6				
1 QU	NEW					

ASK ALL AIRCRAFT AND SHIPBUILDING, ENERGY, ELECTRICAL AND MECHANICAL ENGINEERING (AS DEFINED)

Q8 In your sector who has the strongest bargaining power in setting the invoicing currency? (READ OUT - ONE ANSWER ONLY)

The importer	1
The exporter	2
The larger company	3
Depends case by case (SPONTANEOUS)	4
DK/NA	5
new	

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 8 -





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ASK Q9, Q10, Q11 AND Q12 IF CODES 1 TO 14 IN Q4 OTHERS GO TO Q13

Q9	Do you invoice in a foreign currency for any of the following reasons? (READ OUT - MULTIPLE ANSWERS POSSIBLE)	
	Regulatory or legal reasons (in your or your partner's home country) Accounting reasons Availability of trade credit International payment infrastructure restrictions (at home or abroad) which force you to use a currency other than the euro Your company does not invoice in a foreign currency DK/NA	1, 2, 3, 4, 5
1 QU	NEW	
Q10	Are there any other trade practices which do not allow you to se the euro as an invoicing currency? (READ OUT - ONE ANSWER ONLY)	ŧt
	Yes (PLEASE SPECIFY) No DK/NA	1 2 3
1 QU	NEW	
Q11	Do you take measures to address exchange rate risks in your international trade activities? (READ OUT - ONE ANSWER ONLY)	
	Yes No DK/NA	1 2 3
1 QU	NEW	
ASK IF	CODE 2 "NO" AT Q11A	
Q12	Why do you not address the exchange rate risks in you international trade activities? (READ OUT - ONE ANSWER ONLY)	ır
	Because hedging instruments are not available Because hedging instruments are too costly Any other reasons (PLEASE SPECIFY) DK/NA	1 2 3 4
1 QU	NEW	

1 QU

Questionnaire « Possible obstacles for using the euro in international trade» - DG ECFIN - 9 -





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ASK ALL - FOR AIRCRAFT AND SHIPBUILDING, ENERGY, ELECTRICAL AND MECHANICAL ENGINEERING (AS DEFINED)

How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): (READ OUT - ONE ANSWER ONLY) Q13

001	 ONE	AN:	2441	ER	ONE	IJ.

		Not at all				Very	DK/NA
		important				important	
1	Transaction size	1	2	3	4	5	6
2	Contract duration and delivery time	1	2	3	4	5	6
3	The exchange rate volatility of the euro	1	2	3	4	5	6
4	Interest rates	1	2	3	4	5	6
5	Macroeconomic shocks	1	2	3	4	5	6
6	Other (PLEASE SPECIFY)	1	2	3	4	5	6

NEW 3.5 OU

Q14 To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected) (READ OUT - ONE ANSWER ONLY)

1 Not at all affected 5 Very much affected				DK/NA	
1	2	3	4	5	6

1 QU NEW

What would have to change in order for you to start using the euro more in international trade? Q15



2 QU

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 10 -





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QUESTIONNAIRE FOR THE FINANCIAL SERVICES (AS DEFINED) - ONLY IN IT, FR AND DE

Q1 Thinking about services you provide to entities based abroad, what percentage are intra-group? (READ OUT - ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
Your company does not belong to a group	6
DK/NA	7

NEW

ASK Q2 IF CODES 2 TO 6 IN D6 OTHERS GO TO Q5

Q2 Which are your three largest exporting countries outside the euro area, as measured by value? (DO NOT READ OUT - MAX. 3 ANSWERS)

OPEN-ENDED QUESTION WITH A PRE-CODED LIST AS BELOW

United Kingdom	1,
Poland	2,
Denmark	3,
Czech Republic	4,
Sweden	5,
Hungary	6,
Any other EU countries	7,
United States	8,
Switzerland	9,
China	10,
Russia	11,
Turkey	12,
Japan	13,
Any other non-EU countries	14,
Your company does not export outside the euro area	15
DK/NA	16

NEW

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 11 -





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ASK Q3 AND Q4 IF CODES 2 TO 6 IN D5

Q3	What approximate share of the services you provide to entities based abroad is invoiced in euro? (READ OUT - ONE ANSWER ONLY)	
	None Below 26% 26%-50% 51%-75% 76%-100% DK/NA <i>NEW</i>	1 2 3 4 5
Q4	In which currencies other than the euro do you invoice the services you provide to firms/entities based abroad? (READ OUT - MAX. 3 ANSWERS) U.S. Dollar British Pound Japanese Yen Swiss Franc Chinese Renminbi Canadian Dollar Danish Krona Swedish Krona Korean Won Indian Rupee Brazilian Real Russian Rouble	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,
	Other Your company does not invoice its services in other currencies DK/NA	13, 14, 15 16

NEW

Would you say that invoicing your provided or received services in euro with partners outside the euro area is beneficial for your company? Please indicate from 1 (not at all beneficial) to 5 (very beneficial): Q5

(READ OUT - ONE ANSWER ONLY)

1 Not at a	all benefici	al	5 Very	beneficial	DK/NA
1	2	3	4	5	6

NEW

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 12 -





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QUESTIONS ON OBSTACLES TO USING THE EURO AS AN INVOICING CURRENCY

FOR THE FINANCIAL SERVICES (AS DEFINED) ONLY IN IT, FR AND DE

ASK Q6 IF CODES 1 TO 14 IN Q4

OTHERS GO TO Q7Q6	We would like to understand why you use currencies other than the euro for invoicing the services you provide to entities based abroad. Do any of these factors play a role in your choice? (READ OUT - MULTIPLE ANSWERS POSSIBLE)			
	The recipient country is large and this is the currency used	1,		
	Competitors use other currencies and your company has to keen up with them	2,		
	Sector characteristics - e.g. this is the dominant currency used for the specific product worldwide	з,		
	Exchange risk management Other (PLEASE SPECIFY) DK/NA	4, 5, 6		
	NEW			

ASK ALL - FOR THE FINANCIAL SERVICES (AS DEFINED) ONLY IN IT, FR AND DE

In your sector who has the strongest bargaining power in setting the invoicing currency : (READ OUT - ONE ANSWER ONLY) Q7

The invoicing entity	1
The customer being invoiced	2
The larger company	3
Depends case by case	4
DK/NA	5
NEW	

ASK Q8, Q9, Q10 and Q11 IF CODES 1 TO 14 IN Q4 OTHERS GO TO Q12

Do you invoice in a foreign currency for any of the following Q8 reasons? (READ OUT - MULTIPLE ANSWERS POSSIBLE)

Regulatory or legal reasons (in your or your partner's home	1,
Accounting reasons	2,
Availability of trade credit	З,
International payment infrastructure restrictions (at home or abroad) which force you to use a currency other than the Euro	4,
Your company does not invoice in a foreign currency	5
DK/NA	6
NEW	

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 13 -





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- Q9 Are there any other trade practices which do not allow you to set the euro as an invoicing currency? (READ OUT - ONE ANSWER ONLY) Yes (PLEASE SPECIFY) 1 2 No DK/NA 3 NEW Q10 Do you take measures to address exchange rate risks in your international trade activities? (READ OUT - ONE ANSWER ONLY) Yes 1 2 3 No DK/NA NEW ASK Q11 IF CODE 2 "NO" AT Q10.
- Q11 Why do you not address exchange rate risks in your international trade activities? (READ OUT - ONE ANSWER ONLY)

Because hedging instruments are not available	1
Because hedging instruments are too costly	2
Any other reasons (PLEASE SPECIFY)	3
DK/NA	4

NEW

ASK ALL - FOR THE FINANCIAL SERVICES ONLY IN IT, FR AND DE

Q12 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): (READ OUT - ONE ANSWER ONLY)

		Not at all				Very	DK/NA
		important				important	
1	Transaction size	1	2	3	4	5	6
2	Contract duration and delivery time	1	2	3	4	5	6
3	The exchange rate volatility of the euro	1	2	3	4	5	6
4	Interest rates	1	2	3	4	5	6
5	Macroeconomic shocks	1	2	3	4	5	6
6	Other (PLEASE SPECIFY)	1	2	3	4	5	6

NEW

Questionnaire « Possible obstacles for using the euro in international trade» - DG ECFIN - 14 -





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Q13 To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected) (READ OUT - ONE ANSWER ONLY)

1 Not at all affected 5 Very much affected				DK/NA	
1	2	3	4	5	6

NEW

Q14 What would have to change in order for you to start using the euro more in international trade?

DK/NA

NEW

Questionnaire « Possible obstacles for using the euro in international trade» - DG ECFIN - 15 -





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QUESTIONNAIRE FOR THE FINANCIAL SERVICES (AS DEFINED) ONLY IN THE UK

Q1 Thinking about services you provide to entities based abroad, what percentage are intra-group? (READ OUT - ONE ANSWER ONLY)

None Bolow 26%	1
26%-50%	2
51%-75% 76%-100%	3
Your company does not belong to a group DK/NA	5

NEW

Q2 Which are your three largest exporting countries inside the euro area, as measured by value? (READ OUT - MAX. 3 ANSWERS)

OPEN-ENDED QUESTION WITH A PRE-CODED LIST AS BELOW

Ireland	1,
Germany	2,
The Netherlands	3,
France	4,
Any other euro area countries	5,
Your company does not export inside the euro area	6
Your company does not export inside the euro area	6
DK/NA	7

NEW

Q3 What approximate share of the services you provide to entities based abroad is invoiced in euro? (READ OUT - ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
DK/NA	6
NEW	

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 16 -





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Q4 What is the approximate share of the services you provide to entities based abroad that is invoiced in currencies other than the euro or the British pound, for example in U.S. dollars? (READ OUT - ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
DK/NA	6

NEW

ASK IF CODES 2 TO 6 IN Q3.0THERS GO TO Q7

Q5 Would you say that invoicing your provided or received services in euro with partners based abroad is beneficial for your firm? Please indicate from 1 (not at all beneficial) to 5 (very beneficial). (READ OUT - ONE ANSWER ONLY)

1 Not a	t all benefi	icial	5 Very t	eneficial	Not applicable	DK
1	2	3	4	5	6	7

NEW

QUESTIONS ON OBSTACLES TO USING THE EURO AS AN INVOICING CURRENCY - FOR THE FINANCIAL SERVICES (AS DEFINED) ONLY IN THE UK

Q6 We would like to understand why you use the euro for invoicing the services you provide to entities based abroad. Do any of these factors play a role in your choice? (READ OUT - MULTIPLE ANSWERS POSSIBLE)

The recipient country is large and this is the currency used there Competitors use other currencies and your company has to keep up with them	1, 2,
Sector characteristics - e.g. this is the dominant currency used	З,
Exchange risk management Other (PLEASE SPECTEV)	4,
DK/NA	6

NEW

Questionnaire «Possible obstacles for using the euro in international trade» - DG ECFIN - 17 -





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Q7	In your sector who has the strongest bargaining power in settir the invoicing currency : (READ OUT - ONE ANSWER ONLY)											
	The invoicing entity The customer being invoiced The larger company Depends case by case (SPONTANEOUS) DK/NA	1 2 3 4 5										
	NEW											
Q8	Do any of the following reasons play a role in your decision not invoice in euro? (READ OUT - MULTIPLE ANSWERS POSSIBLE)	to										
	Regulatory or legal reasons (in your or your partner's home country) Accounting reasons Availability of trade credit International payment infrastructure restrictions (at home or abroad) which force you to use a currency other than the euro Your company does not invoice in a foreign currency DK/NA	1, 2, 3, 4, 7										
	NEW											
Q9	Are there any other trade practices which do not allow you to s the euro as an invoicing currency? (READ OUT - ONE ANSWER ONLY)	et										
	Yes (PLEASE SPECIFY) No DK/NA	1 2 3										
	NEW											
Q10	Do you take measures to address exchange rate risks in your international trade activities with entities based abroad? (READ OUT - ONE ANSWER ONLY)											
	Yes No DK/NA <i>NEW</i>	1 2 3										

Questionnaire « Possible obstacles for using the euro in international trade» - DG ECFIN - 18 -



Appendix D. TNS report

Flash Eurobarometer 424

Possible obstacles to using the euro in international trade

Conducted by TNS Political & Social at the request of the European Commission, Directorate-General for Economic and Financial Affairs

Survey co-ordinated by the European Commission, Directorate-General for Communication (DG COMM "Strategy, Corporate Communication Actions and Eurobarometer" Unit) FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade"

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INTRODUCTION

This summary looks at the possible obstacles to using the euro in international trade in specific industries as perceived by companies in France, Germany, Italy and the UK – the four largest economies within the European Union.

Following a mandate from the European Commission, the survey looked for possible obstacles to using the euro in international trade in four specific industries: (i) aircraft and shipbuilding, (ii) energy, (iii) financial services (excluding insurance), and (iv) electrical and mechanical engineering. The survey covered companies involved in international trade with partners outside the Eurozone in Italy, France and Germany. In addition, the survey covered companies in the UK in the sector of financial services as detailed above, which are engaged in trade with partners in the Eurozone or with partners outside EU. These four countries are treated in two groups throughout the survey. Eurozone members France, Germany, and Italy are considered together. The study looks at the responses of four business sectors in these countries: aircraft/shipbuilding, energy, electrical/mechanical, and financial services. As a country which does not use the euro, the UK is looked at separately, with only financial services companies included given the importance of offshore euro-denominated financial services. The study comprised three questionnaires in total: questionnaire A asked in France, Germany and Italy among aircraft/shipbuilding, energy, electrical/mechanical sectors; questionnaire B asked in France, Germany and Italy in financial services; and questionnaire C asked in the UK in financial services.

The number of contacted companies and breakdown of interviews conducted during the course of this survey is as follows¹:

Contacted companies by country, size and sector													
	DE	FR	IT	UK	Total								
Total	4399	2582	2791	7675	17447								
1-9 employees	2510	1359	1256	5485	10610								
10-49 employees	1227	831	1269	1279	4606								
50-249 employees	524	291	254	664	1733								
250+ employees	138	101	12	247	498								
Aircraft/shipbuilding	93	376	417	0	886								
Energy	758	81	221	0	1060								
Electrical/mechanical engineering	2050	957	1432	0	4439								
Financial services	1498	1168	721	7675	11062								

¹ The reader should note from the numbers shown above that the sample sizes are small for a number of categories, and the results relating to these categories should therefore be treated with caution.

FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade"

Composition of company responses by country, size and sector												
	DE	FR	IT	UK	Total							
Total	100	100	100	100	400							
1-9 employees	25	33	20	61	139							
10-49 employees	35	41	67	20	163							
50-249 employees	27	22	9	13	71							
250+ employees	13	4	4	3 ²	24							
Aircraft/shipbuilding	0	0	1	0	1							
Energy	6	1	0	0	7							
Electrical/mechanical engineering	89	96	97	0	282							
Financial services	5	3	2	100	110							

Given that the response rate in some categories was too low, the survey does not allow for a detailed comparison of responses between different industries. Despite the big size of some industries (e.g. aircraft, shipbuilding and energy), companies tend to be relatively large, and hence the number of companies is small. An important criterion was the requirement for the company to be engaged in trade outside the Euro area, making it challenging to achieve a large sample size.

This survey was carried out by TNS Political & Social network in four Member States of the European Union, namely France, Germany, Italy and the United Kingdom, between July 20th and August 7th, 2015. More than 17000 companies (i.e. DE: 4,399, FR: 2,582, IT: 2,791, UK: 7,675) were contacted on behalf of the European Commission, Directorate-General for Economic and Financial Affairs. The response rate was 2.3%³ or a total of 400 responses. Note that the aircraft, shipbuilding and energy sectors showed particularly low number of responses. The methodology used is that of Eurobarometer surveys as carried out by the Directorate-General for Communication ("Strategy, Corporate Communication Actions and Eurobarometer" Unit)⁴. The data presented is not weighted. A technical note on the manner in which interviews were conducted by the Institutes within the TNS Political & Social network is appended as an annex to this summary. Also included are the interview methods and confidence intervals⁵.

 $^{^{\}rm 2}$ Three respondents in the UK did not disclose the size of their company.

 $^{^3}$ In this instance: the response rate is calculated as the total number of achieved interviews divided by the total number of contacted companies.

⁴ <u>http://ec.europa.eu/public_opinion/index_en.htm</u>

⁵ The results tables are included in the annex. It should be noted that the total of the percentages in the tables of this summary may exceed 100% when the company has the possibility of giving several answers to the question.

FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade"

<u>Note:</u> In this summary, countries are referred to by their official abbreviation. The abbreviations used in this summary correspond to:

			BBRE	VIAT	IONS	5			
DE FR IT UK	Germany France Italy The United Kingdom								
		*	*	*	*	*			

We wish to thank the companies in France, Germany, Italy and the United Kingdom which have given their time to take part in this survey. Without their active participation, this study would not have been possible.

EXECUTIVE SUMMARY

Export shares and destinations

- The U.S. is the top export destination for companies in France, Germany and Italy, followed by China, Russia and Switzerland.
- The UK's top euro markets are Germany, France, the Netherlands and Ireland.
- Nearly a quarter of companies in France, Germany and Italy say that none of their exports were intra-group, while around a quarter (24%) say that some of their exports were intra-group.
- In the UK, nearly four out of 10 companies say that none of their exports were intra-group, while nearly a quarter say that some exports were intra-group.
- In France, Germany and Italy 40% of financial services companies say that between 1% and 100% of their exports were intra-group, compared with 24% in the UK.

Trade invoicing

- Roughly eight out of ten companies in France, Germany and Italy say that 76-100% of their export invoices are in euros.
- Over a quarter of UK companies invoice at least some of their customers in euros.
- In France, Germany and Italy smaller companies are more likely to invoice 76-100% of their exports in euros, whereas in the UK large companies are practically the only ones which invoice their exports in euros.
- Around two-thirds of companies in France, Germany and Italy do not invoice in currencies other than the euro, though nearly three in 10 invoice in U.S. dollars.
- A majority of large companies, but only a minority of small companies, invoiced some of their exports in U.S. dollars.
- Around seven out of 10 UK companies only invoice in pounds or euros, though nearly three out of ten have invoiced in some other currency.
- Four out of five companies use the same main currency to settle exports and imports from non-euro countries.
- Half of the companies in France, Germany and Italy think that invoicing in euros for both imports and exports is beneficial for their company.
- In the UK, nearly three out of ten companies say that invoicing in euros for services provided to partners abroad is beneficial for their company.
- Companies with under 250 employees (75-95%) are the most likely to settle exports and imports in the same currency, whereas companies with at least 250 employees (72-75%) are the least likely to do so.
- Four-fifths of electrical and mechanical companies settle exports and imports in the same currency, versus 50% of energy companies.

Determinants of trade invoicing

- The large size of the recipient country is the main factor when it comes to invoicing exports in a currency other than the euro.
- In the UK, nearly six out of ten companies say that they use the euro for invoicing because the recipient country is large and uses the euro.
- Financial services companies are more likely than electrical/mechanical companies to use currencies other than the euro because of exchange management risk and due to sector characteristics.
- Contract duration and delivery time is the main reason for invoicing in euros for companies in France, Germany and Italy.
- In contrast, companies in the UK are most likely to say that the exchange rate and the volatility of the euro is the most important factor when choosing the euro.
- Companies from financial services companies are the most likely to think that exchange rate volatility and macroeconomic shocks are important factors.
- The exporter or the invoicing entity is seen as having the most bargaining power when it comes to settling the invoice currency.
- Financial services companies are the most likely to say that the importer has the strongest bargaining power.

Obstacles to using the euro in trade invoicing international trade in other currencies

- Accounting and regulatory or legal reasons are the explanations most commonly given in France, Germany and Italy for invoicing in a foreign currency.
- In the UK, over three out of ten companies say that their company does not invoice in euros because their company does not invoice any in foreign currencies.
- Larger companies are the most likely not to invoice in a foreign currency.
- Financial services companies are more likely than electrical/mechanical companies to mention a range of reasons for invoicing in a foreign currency, including the availability of trade credit.
- Very few companies say there are any other trade practices which do not allow them to set the euro as their invoicing currency.

Addressing exchange rate risks in international trade activities

- Half of the surveyed companies take measures to address exchange rate risks in their international trade activities.
- Four out of ten companies in France, Germany and Italy say that hedging instruments that reduce exchange rate risks are too expensive.
- Larger companies are more likely to take measures to reduce exchange rate risk.

The effect of the recent European sovereign debt crisis on the use of the euro in invoicing practices

- Around three quarters of companies in France, Germany and Italy say that the debt crisis has not affected their use of the euro in invoicing.
- In the UK nearly nine out of ten say the crisis has had no effect on their use of the euro.
- Four fifths of the financial services companies say that the debt crisis did not have an effect on their use of the euro in trade invoicing, compared with 86% of energy companies, and 89% of electrical/mechanical companies.

What would you have to change in order to start using the euro more in international trade

- Most companies say there is nothing that could change that would make them use the euro more, as they are already committed to using either the euro or another currency according to their clients' wishes.
- But some say it would be helpful for the euro to become more stable, for the banking system to become cheaper and more efficient, and for the euro to gain wider acceptance internationally.

1. EXPORT SHARES AND DESTINATIONS

The first section of the report looks at exports: companies are asked whether their company last year exported intra-group – in other words whether it exported to companies within their own business network – and also which countries their companies exported products to.

- Around a quarter of companies exported intra-group last year -

The companies were first asked what percentage of their exports were intra-group in the latest fiscal year⁶. Taking the responses from France, Germany and Italy together, nearly a quarter (23%) of companies say that none of their exports were intra-group, while around a quarter (24%) say that some of their export were intra-group: specifically, 16% say that below 26% of their exports were intra-group, while 8% say that at least 26% of their exports were intra-group. Nearly half of the companies (48%) say that their company does not belong to a group.



Q1. Could you please estimate what percentage of your exports are intra-group in the last fiscal year or latest available year, before tax?

Base: All companies in Germany, France and Italy (n = 300)

⁶ Q1b. Thinking about services you provide to entities based abroad, what percentage are intra-group?

Looking at the results from these three countries individually, Germany (41%) has the highest proportion of companies who say that none of their exports were intra-group, followed by France (21%), and Italy (6%), while France (22%) has the highest proportion saying that below 26% of their exports were intra-group, followed by Germany (16%) and Italy (8%). While 13% of companies in France say that at least 26% of their exports were intra-group, only 10% in Germany and 4% in Italy give this answer. Italy (79%) has by far the highest proportion of companies who say that their company does not belong to a group; only 35% of companies in France, and 30% in Germany, say this.

		None Below 26%		26%-50%	51%-75%	76%- 100%	Your company does not belong to a group	Don't know	
	TOTAL	23%	16%	4%	3%	1%	48%	5%	
	DE	41%	16%	6%	3%	1%	30%	3%	
0	FR	21%	22%	6%	5%	2%	35%	9%	
0	IT	6%	8%	1%	2%	1%	79%	3%	

Q1 Could you please estimate what percentage of your exports are intra-group in the last fiscal year or latest available year, before tax?

Base: All companies in Germany, France and Italy (n = 300)

Turning now to the results from the UK, nearly four out of 10 companies (39%) say that none of their exports were intra-group, while nearly a quarter (24%) say that some of their exports were intra-group: specifically, around one in six (16%) say that below 26% of their exports were intra-group, and less than a tenth (8%) say that at least 26% of their exports were intra-group. Around a third of the companies (34%) say that their company does not belong to a group.



Q1c. Thinking about services you provide to entities based abroad, what percentage are intra-group?

Looking at companies from France, Germany and Italy by size, those with over 250 employees (43-65%) are more likely to say that between 1% and 100% of their exports were intra-group. This compares with smaller companies with under 250 employees (17-36%). The pattern is similar for UK companies: all companies with 250-499 employees say that between 1% and 100% of their exports were intra-group, compared with 12-62% of those with under 250 employees. In France, Germany and Italy companies from companies with under 250 employees (31-57%) are the most likely to say that their company does not belong to a group, while those from companies with at least 250 employees (14%) are the least likely to say this. Similarly in the UK, 15-44% of companies from smaller companies say that their company does not belong to a group, compared with their company does not belong to a group, while those from companies of a group, companies from smaller companies say that their company does not belong to a group, while those from companies of the UK, 15-44% of companies from smaller companies say that their company does not belong to a group, while their company does not belong to a group, compared with none of the companies with over 250 employees.

In France, Germany and Italy 40% of financial services companies, and 24% from electrical and mechanical companies, say that between 1% and 100% of their exports were intra-group. None of the companies from aircraft/shipbuilding and energy companies say that any of their exports were intra-group. This compares with the UK, where 24% of companies from financial services companies say that between 1% and 100% of their exports were intra-group. In France, Germany and Italy, 100% of companies from aircraft/shipbuilding companies say that their company does not belong to a group, compared with 49% from electrical/mechanical companies, 30% from financial services, and 14% from energy. In the UK 34% of companies from financial services companies from financial services companies from financial services companies from financial services companies from financial services, and 14% from energy. In the UK 34% of companies from financial services companies say that their company does not belong to a group.

Base: All companies in the UK (n = 100)

In France, Germany and Italy, companies with a turnover of 100,000 to 500,000 euros (39%) are the most likely to have exported some of their products intra-group, while those with a turnover of 500,000 to 2 million euros (19%) are the least likely to have done so. However, in the UK companies with a turnover of more than 2 million euros (60%) are the most likely to have exported intra-group.

	None	Below 26%	26%-50%	51%-75%	76%-100%	Your company does not belong to a group	Don't know	Total 'Share of exports 1 - 100%'		
TOTAL	23%	16%	4%	3%	1%	48%	5%	24%		
Company size										
1-9 employees	24%	13%	5%	1%	0%	54%	3%	19%		
10-49 employees	22%	12%	2%	3%	0%	57%	4%	17%		
50-249 employees	28%	24%	4%	3%	5%	31%	5%	36%		
250-499 employees	14%	29%	22%	7%	7%	14%	7%	65%		
500+ employees	0%	0%	14%	29%	0%	14%	43%	43%		
Sectors grouped (NACE)										
Aircraft and shipbuilding	0%	0%	0%	0%	0%	100%	0%	0%		
Energy	72%	0%	0%	0%	0%	14%	14%	0%		
Electrical and mechanical engineering	22%	15%	5%	3%	1%	49%	5%	24%		
Financial services	20%	40%	0%	0%	0%	30%	10%	40%		
Company's turnover in the last fi	scal year									
Up to 100 000 euros	0%	25%	0%	0%	0%	75%	0%	25%		
More than 100 000 to 500 000 euros	23%	31%	8%	0%	0%	38%	0%	39%		
More than 500 000 to 2 mil. euros	22%	11%	5%	3%	0%	58%	1%	19%		
More than 2 mil. euros	24%	18%	4%	4%	3%	40%	7%	29%		

Q1 Could you please estimate what percentage of your exports are intra-group in the last fiscal year or latest available year, before tax?

Base: All companies in Germany, France and Italy (n = 300)

	None	Below 26%	26%-50%	51%-75%	76%-100%	Your company does not belong to a group	Don't know	Total 'Share of services 1 - 100%'		
UK	39%	16%	6%	0%	2%	34%	3%	24%		
Company size										
1-9 employees	41%	7%	3%	0%	2%	44%	3%	12%		
10-49 employees	35%	20%	10%	0%	5%	25%	5%	35%		
50-249 employees	23%	54%	8%	0%	0%	15%	0%	62%		
250-499 employees	0%	0%	100%	0%	0%	0%	0%	100%		
500+ employees	50%	50%	0%	0%	0%	0%	0%	50%		
Sectors grouped (NACE)										
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%	0%	0%		
Energy	0%	0%	0%	0%	0%	0%	0%	0%		
Electrical and mechanical engineering	0%	0%	0%	0%	0%	0%	0%	0%		
Financial services	39%	16%	6%	0%	2%	34%	3%	24%		
Company's turnover in the last fis	scal year									
Up to 100 000 euros	44%	0%	0%	0%	0%	56%	0%	0%		
More than 100 000 to 500 000 euros	43%	4%	0%	0%	5%	43%	5%	9%		
More than 500 000 to 2 mil. euros	56%	0%	11%	0%	0%	33%	0%	11%		
More than 2 mil. euros	32%	52%	8%	0%	0%	4%	4%	60%		

Q1c Thinking about services you provide to entities based abroad, what percentage are intra-group?

Base: All companies in the UK (n = 100)

- The U.S. is the top export destination outside the Eurozone for companies in France, Germany and Italy, followed by China -

Companies in France, Germany and Italy were asked to identify their three largest export destinations outside the euro area⁷. A third of companies (33%) include the United States in their list, with China (23%), Russia (13%), and Switzerland (12%) among the other top destination. Nearly six out of ten companies (59%) said they exported to other non-EU countries not listed below.



Q2. Which are your three largest exporting countries outside the euro area, as measured by value?

Looking now at these three countries individually, companies in Germany (46%) are the most likely to count the U.S. as a top export destination, followed by France (28%) and Italy (24%). Companies in Germany are also the most likely to say that their company exports to China (34% vs. 19% for France and 18% for Italy), and to Switzerland (20% vs. 9% for Italy and 7% for France). Companies in France (69%) are the most likely to count other non-EU countries as one of their largest export markets, followed by Italy (63%) and Germany (46%).

	(MAX. 3 ANSWERS)																
		United States	China	Russia	Switzerland	Turkey	United Kingdom	Poland	Japan	Czech Republic	Sweden	Hungary	Denmark	Any other EU countries	Any other non-EU countries	Your company does not export outside the euro area	Don't know
	TOTAL	33%	23%	13%	12%	5%	3%	3%	3%	1%	1%	0%	0%	8%	59%	2%	2%
	DE	46%	34%	16%	20%	4%	6%	3%	6%	1%	2%	0%	1%	10%	46%	3%	1%
0	FR	28%	19%	6%	7%	2%	4%	2%	1%	1%	1%	0%	0%	2%	69%	1%	4%
0	IT	24%	18%	16%	9%	8%	0%	3%	2%	0%	0%	0%	0%	12%	63%	2%	1%
						Highe	st percent	tage per co	ountry	Lowe	est percent	age per cou	intry em	1			

Q2 Which are your three largest exporting countries outside the euro area, as measured by value?

Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)

Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)

⁷ Q2b. Which are your three largest exporting countries outside the euro area, as measured by value?

Companies in the UK were asked to identify their company's three largest export markets inside the euro area. Germany (22%), France (21%), the Netherlands (16%) and Ireland (13%) were listed as the top destinations, while 36% of companies say their company exports to other Eurozone countries. A quarter of UK companies (25%) say that their company does not export to any Eurozone countries.



Q2c. Which are your three largest exporting countries inside the euro area, as measured by value?

Base: All companies in the UK (n = 100)

Turning back to companies from France, Germany and Italy, the data show that larger companies are the most likely to export to other non-EU countries: 64-71% of companies with over 250 employees do this, compared with 52-65% of companies with under 250 employees. Companies with over 250 employees are somewhat the most likely to export to the U.S. (43-57% vs. 25-43%), China (29-50% vs. 18-32%), and to Japan (0-21% vs. 0-4%). In the UK, all companies with at least 250 employees export to Germany, though only 16-38% of smaller companies do so. 50-100% of large companies export to France, compared with 16-31% of smaller companies. Companies with 1-9 employees (34%) are the most likely to say they do not export to the euro area, followed by 15% of those with 10-49 employees. All UK companies with at least 50 employees export to the euro area.

Looking at sector, 67% of energy companies in France, Germany and Italy exported to the U.S., compared with 50% of financial services companies, and 32% of electrical and mechanical companies. A third (33%) of energy companies exported to China, followed by 25% of financial services companies, 23% of electrical and mechanical companies. However, 61% of electrical and mechanical companies exported to other non-EU countries, compared with only 33% of energy companies, and 13% of financial services companies.

Companies in France, Germany and Italy with a turnover of more than 2 million euros are the most likely to have exported to the U.S. (37% vs. 25% of companies with a turnover of 100,000 to 2 million euros) and to China (30% vs. 18% of companies with a turnover of 500,000 to 2 million euros). Companies with a turnover of 500,000 to 2 million euros). Companies with a turnover of 500,000 to 2 million euros (69%) are the most likely to have exported to other non-EU countries, while those with a turnover of 100,000 to 500,000 euros (13%) are the least likely to have done so. In the UK, companies with a turnover of more than 2 million euros are the most likely to have exported to Germany (36%), France (32%), the Netherlands (24%) and Ireland (20%). Companies from these companies are also by far the least likely to say that their company does not export to the euro area (8% vs. 33-44% of other companies).

	United States	China	Russia	Switzerland	Turkey	United Kingdom	Poland	Japan	Any other non-EU countries	Any other EU countries	Your company does not export outside the euro area	Don't know		
TOTAL	33%	23%	13%	12%	5%	3%	3%	3%	59%	8%	2%	2%		
Company size														
1-9 employees	25%	18%	10%	8%	8%	5%	2%	0%	52%	8%	3%	2%		
10-49 employees	29%	19%	14%	16%	5%	1%	5%	2%	65%	8%	2%	1%		
50-249 employees	43%	32%	14%	11%	2%	5%	2%	4%	52%	9%	4%	5%		
250-499 employees	57%	50%	14%	7%	7%	0%	0%	21%	64%	0%	0%	0%		
500+ employees	43%	29%	0%	0%	14%	14%	0%	0%	71%	14%	0%	0%		
Sectors grouped (NACE)														
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
Energy	67%	33%	0%	0%	0%	0%	33%	0%	33%	0%	0%	0%		
Electrical and mechanical engineering	32%	23%	13%	12%	5%	2%	3%	3%	61%	8%	2%	2%		
Financial services	50%	25%	0%	13%	0%	25%	0%	13%	13%	13%	13%	0%		
Company's turnover in the last fis	cal year													
Up to 100 000 euros	0%	0%	0%	0%	0%	0%	0%	0%	50%	25%	0%	0%		
More than 100 000 to 500 000 euros	25%	25%	0%	25%	13%	13%	13%	0%	13%	13%	0%	0%		
More than 500 000 to 2 mil. euros	25%	18%	7%	5%	5%	2%	2%	2%	69%	5%	4%	2%		
More than 2 mil. euros	37%	30%	15%	13%	4%	3%	2%	3%	66%	6%	2%	3%		

Q2 Which are your three largest exporting countries outside the euro area, as measured by value? (MAX. 3 ANSWERS)

Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)

	Germany	France	The Netherlands	Ireland	Any other euro area countries	Your company does not export inside the euro area	Don't know
UK	22%	21%	16%	13%	36%	25%	7%
Company size							
1-9 employees	16%	16%	15%	13%	33%	34%	2%
10-49 employees	20%	20%	5%	15%	60%	15%	10%
50-249 employees	amployees 38% 31		38%	15%	15%	0%	31%
250-499 employees	employees 100% 100%		0%	0%	100%	0%	0%
500+ employees	100%	50%	0%	0%	0%	0%	0%
Sectors grouped (NACE)							
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%	0%
Energy	0%	0%	0%	0%	0%	0%	0%
Electrical and mechanical engineering	0%	0%	0%	0%	0%	0%	0%
Financial services	22%	21%	16%	13%	36%	25%	7%
Company's turnover in the last fis	cal year						
Up to 100 000 euros	11%	33%	0%	11%	44%	33%	0%
More than 100 000 to 500 000 euros	14%	14%	10%	10%	33%	38%	0%
More than 500 000 to 2 mil. euros	33%	22%	22%	0%	22%	44%	11%
More than 2 mil. euros 36% 32%		24%	20%	40%	8%	12%	

Q2c Which are your three largest exporting countries inside the euro area, as measured by value? (MAX. 3 ANSWERS)

Base: All companies in the UK (n = 100)

2. TRADE INVOICING

The second chapter of the report focuses on the currencies which companies use for invoicing when doing business abroad. The extent to which they use euros and also other global currencies is looked at here, and companies are also asked whether it is beneficial for their company to be able to invoice in the same currency for both imports and exports.

2.1. Export shares invoiced in euro and other currencies

- Around eight in ten companies in France, Germany and Italy invoiced over three quarters of their exports in euros -

Nearly eight out of ten companies (78%) from companies in France, Germany and Italy say that 76-100% of their export invoices are in euros⁸. 6% say that 51-75% of their exports are invoiced in euros, 4% say that 26-50% are in euros, and 8% say that below 26% are in euros. Just 2% of companies say that none of their exports are invoiced in euros.



Q3. What approximate share of your exports is invoiced in euro?

Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)

 $^{^{8}}$ Q3b. What approximate share of the services you provide to entities based abroad is invoiced in euro?

Companies in Italy (81%) are the most likely to say that 76-100% of their export invoices are in euros, followed by 79% in Germany and 73% in France. Companies in France are the most likely to say that below 26% of their exports (14%) or none of their exports (4%) are invoiced in euros.

		None	Below 26%	26%-50%	51%-75%	76%- 100%	Don't know
	TOTAL	2%	8%	4%	6%	78%	2%
	DE	3%	3%	7%	7%	79%	1%
0	FR	4%	14%	2%	6%	73%	1%
0	IT	0%	8%	4%	5%	81%	2%

Q3 What approximate share of your exports is invoiced in euro?

In the UK, in contrast, over seven out of 10 companies (71%) say that their company invoices none of the services it provides to entities based abroad in euros. But over a quarter (27%) invoice at least some of their customers in euros. Nearly a fifth (18%) of UK companies invoice below 26% of these transactions in euros, while less than a tenth (9%) invoice 26% or more of them in euros.

Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)



Q3c. What approximate share of the services you provide to entities based abroad is invoiced in euro?

Base: All companies in the UK (n = 100)

In France, Germany and Italy smaller companies are more likely to invoice 76-100% of their exports in euros: 78-82% of companies from companies with 249 employees or fewer say their company did this, compared with 43-50% of companies from companies with 250 employees or more. But in the UK, large companies are practically the only ones which invoice their exports in euros: 50% of companies with 500 employees or more say they invoice 76-100% of their exports in euros, whereas 54-83% of companies from companies with 249 employees or fewer say that none of their invoices were in euros.

Among companies in France, Germany and Italy, 100% of companies from energy companies say that 76-100% of their export invoices were in euros, compared with 78% of those from electrical and mechanical companies, and 50% from financial services companies. 13% of companies from financial services companies did not invoice any of their exports in euros.

Companies in France, Germany and Italy from companies that reported a turnover of 500,000 to 2 million euros last year (84%) are the most likely to say that 76-100% of their export invoices were in euros, compared with 50% of those from companies with a turnover of 100,000 to 500,000 euros. In the UK, 78-89% of companies from companies with a turnover of 2 million euros or less invoiced none of their exports in euros, compared with just 44% of companies with a turnover of more than 2 million euros.

	None	Below 26%	26%-50%	51%-75%	76%-100%	Don't know	Total 'Share of exports 1 - 100%'
TOTAL	2%	8%	4%	6%	78%	2%	96%
Company size							
1-9 employees	3%	11%	3%	2%	79%	2%	95%
10-49 employees	2%	7%	1%	7%	82%	1%	97%
50-249 employees	0%	7%	7%	4%	78%	4%	96%
250-499 employees	7% 7%		7%	29%	50%	0%	93%
500+ employees	0%	14%	43%	0%	43%	0%	100%
Sectors grouped (NACE)							
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%	0%
Energy	0%	0%	0%	0%	100%	0%	100%
Electrical and mechanical engineering	2%	8%	5%	5%	78%	2%	96%
Financial services	13%	12%	0%	25%	50%	0%	87%
Company's turnover in the last fis	cal year						
Up to 100 000 euros	0%	25%	0%	0%	75%	0%	100%
More than 100 000 to 500 000 euros	0%	38%	12%	0%	50%	0%	100%
More than 500 000 to 2 mil. euros	3%	9%	0%	4%	84%	0%	97%
More than 2 mil. euros	2%	7%	5%	7%	78%	1%	97%

Q3 What approximate share of your exports is invoiced in euro?

Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)

	None	Below 26%	26%-50%	51%-75%	76%-100%	Don't know	Total 'Share of services 1 - 100%'
UK	71%	18%	3%	4%	2%	2%	27%
Company size							
1-9 employees	83%	10%	3%	2%	0%	2%	15%
10-49 employees	50%	35%	5%	0%	5%	5%	45%
50-249 employees	54%	31%	0%	15%	0%	0%	46%
250-499 employees	0% 0		0%	100%	0%	0%	100%
500+ employees	0%	50%	0%	0%	50%	0%	100%
Sectors grouped (NACE)							
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%	0%
Energy	0%	0%	0%	0%	0%	0%	0%
Electrical and mechanical engineering	0%	0%	0%	0%	0%	0%	0%
Financial services	71%	18%	3%	4%	2%	2%	27%
Company's turnover in the last fis	cal year						
Up to 100 000 euros	78%	22%	0%	0%	0%	0%	22%
More than 100 000 to 500 000 euros	81%	14%	0%	0%	0%	5%	14%
More than 500 000 to 2 mil. euros	89%	0%	11%	0%	0%	0%	11%
More than 2 mil. euros	44%	32%	8%	8%	4%	4%	52%

Q3c What approximate share of the services you provide to entities based abroad is invoiced in euro?

Base: All companies in the UK (n = 100)

- Around three out of ten companies in France, Germany and Italy invoiced some of their exports in U.S. dollars -

Nearly two-thirds of companies (65%) in France, Germany and Italy say that their company does not invoice exports in other currencies, and of those that do most (29%) invoice in U.S. dollars⁹. A handful of companies invoice exports in British pounds (3%) and Swiss francs (3%).



Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)

Companies in Italy (71%) are the most likely to say that their company does not invoice exports in other currencies, followed by Germany (63%) and France (61%). Companies in France (33%) are the most like to invoice in U.S. dollars, followed by Germany (29%) and Italy (24%).

		U.S. Dollar	British Pound	Swiss Franc	Chinese Renminbi	Russian Rouble	Japanese Yen	Canadian Dollar	Danish Krona	Swedish Krona	Korean Won	Indian Rupee	Brazilian Real	Turkish Lira	Other	Your company does not invoice its exports in other currencies	Don't know
	TOTAL	29%	3%	3%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	3%	65%	2%
	DE	29%	1%	3%	3%	2%	1%	0%	0%	0%	0%	0%	0%	0%	2%	63%	0%
0	FR	33%	5%	2%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	7%	61%	2%
0	IT	24%	2%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	1%	71%	3%
						Highes High	t percent est percer	age per o ntage per	ountry item	Lowes	<i>t percenta</i> est percer	age per co ntage per	ountry item				

Q4 In which currencies, other than the euro, do you invoice your exports? (MAX. 3 ANSWERS)

Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)

 $^{^{9}}$ Q4b. In which currencies other than the euro do you invoice the services you provide to entities based abroad?

FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade"

Around seven out of 10 companies (69%) in the UK say that their company invoiced none of its exports in currencies other than the British pound or the euro. However, 28% did invoice in some other currency, with 17% having done so less than 26% of the time, and 11% having done so at least 26% of the time.

Q4c. What is the approximate share of the services you provide to entities based



Base: All companies in the UK (n = 100)

While 57-71% of companies with over 250 employees invoiced their exports in U.S. dollars, only 18-39% of those from companies with under 250 employees did so. In contrast, 57-72% of companies from companies with fewer than 250 employees invoiced none of their exports in other currencies, as opposed to 21-43% of companies from companies with 250 employees or more. Similarly in the UK 50-100% of companies from larger companies invoiced some of their exports in currencies other than pounds or euros, versus only 24-38% of companies from smaller companies.

All energy companies in France, Germany and Italy say that their company did not invoice in any other currency, compared with 66% from electrical and mechanical companies, and 25% of financial services companies. Electrical and mechanical companies (29%) were the most likely to have invoiced in U.S. dollars (vs. 25% of financial services companies companies). However, financial services companies were by far the most likely to have invoices in British pounds (25%), Swiss francs (25%), Japanese yen (13%), or Chinese renminbi (13%).

Around a third (34%) of companies in France, Germany and Italy with a turnover of more than 2 million euros invoiced in U.S. dollars, compared with 13-25% of companies with lower turnovers. Three quarters of companies with a turnover of up to 100,000 euros did not invoice in any other currencies, as opposed to 62% of companies with a turnover of over 2 million euros. In the UK, 36% of companies with a turnover of more than 2 million euros invoiced in a currency besides the pound or the euro, compared with 19% of companies with a turnover of 100,000 to 500,000 euros.

	U.S. Dollar	British Pound	Swiss Franc	Japanese Yen	Chinese Renminbi	Russian Rouble	Your company does not invoice its exports in other currencies	Other	Don't know
TOTAL	29%	3%	3%	1%	1%	1%	65%	3%	2%
Company size									
1-9 employees	18%	3%	5%	0%	2%	2%	72%	2%	2%
10-49 employees	23%	0%	2%	0%	1%	0%	71%	2%	3%
50-249 employees	39%	7%	0%	0%	2%	2%	57%	5%	0%
250-499 employees	71%	0%	14%	7%	0%	0%	21%	14%	0%
500+ employees	57%	14%	0%	14%	0%	0%	43%	0%	0%
Sectors grouped (NACE)									
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%	0%	0%	0%
Energy	0%	0%	0%	0%	0%	0%	100%	0%	0%
Electrical and mechanical engineering	29%	2%	2%	0%	1%	1%	66%	3%	2%
Financial services	25%	25%	25%	13%	13%	0%	25%	25%	0%
Company's turnover in the last fis	cal year								
Up to 100 000 euros	25%	0%	0%	0%	0%	0%	75%	0%	0%
More than 100 000 to 500 000 euros	13%	13%	12%	0%	0%	0%	62%	0%	0%
More than 500 000 to 2 mil. euros	25%	0%	2%	0%	0%	0%	69%	2%	4%
More than 2 mil. euros	34%	3%	2%	1%	1%	0%	62%	6%	2%

Q4 In which currencies, other than the euro, do you invoice your exports? (MAX. 3 ANSWERS)

Base: Companies in Germany, France and Italy that export outside the euro area (n = 269)
FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade"

Q4c What is the approximate share of the services you provide to entities based abroad that is invoiced in currencies other than the euro or the British pound, for example in U.S. dollars?

	None	Below 26%	26%-50%	51%-75%	76%-100%	Don't know	Total 'Share of services 1 - 100%'				
UK	69%	17%	4%	4%	3%	3%	28%				
Company size											
1-9 employees	74%	16%	2%	3%	3%	2%	24%				
10-49 employees	65%	15%	5%	0%	5%	10%	25%				
50-249 employees	62%	15%	15%	8%	0%	0%	38%				
250-499 employees	0%	100%	0%	0%	0%	0%	100%				
500+ employees	50%	0%	0%	50%	0%	0%	50%				
Sectors grouped (NACE)											
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%					
Energy	0%	0%	0%	0%	0%	0%					
Electrical and mechanical engineering	0%	0%	0%	0%	0%	0%					
Financial services	69%	17%	4%	4%	3%	3%	28%				
Company's turnover in the last fis	cal year										
Up to 100 000 euros	67%	22%	0%	0%	11%	0%	33%				
More than 100 000 to 500 000 euros	76%	14%	0%	5%	0%	5%	19%				
More than 500 000 to 2 mil. euros	78%	22%	0%	0%	0%	0%	22%				
More than 2 mil. euros	60%	20%	8%	4%	4%	4%	36%				

- Four out of five companies use the same main currency to settle exports and imports from non-euro countries -

Over eight out of 10 companies (81%) in France, Germany and Italy say that the main currency they use to settle their exports is the same as the one they use to settle import purchases from outside the euro area. 13% of companies say they do not use the same currency for settling exports and imports.



Base: Companies in Germany, France and Italy that export outside the euro area and that invoice some of their services in currencies other than euros or pounds (n = 194)

Companies with under 250 employees (75-95%) are the most likely to settle exports and imports in the same currency, whereas companies with at least 250 employees (72-75%) are the least likely to do so.

While 81% of electrical and mechanical companies settle exports and imports in the same currency, only 50% of energy companies use the same currency for both.

All companies with a turnover of 500,000 euros or less settle their exports and imports in the same currency, as opposed to 78-80% of companies with a turnover of more than 500,000 euros.

	Yes	No	Does not apply to your company (SPONTANEOUS)	Don't know					
TOTAL	81%	12%	3%	4%					
Company size									
1-9 employees	95%	2%	0%	3%					
10-49 employees	75%	15%	8%	2%					
50-249 employees	84%	11%	0%	5%					
250-499 employees	75%	17%	0%	8%					
500+ employees	72%	14%	0%	14%					
Sectors grouped (NACE)									
Aircraft and shipbuilding	0%	0%	0%	0%					
Energy	50%	50%	0%	0%					
Electrical and mechanical engineering	81%	11%	4%	4%					
Financial services	0%	0%	0%	0%					
Company's turnover in the last fis	cal year								
Up to 100 000 euros	100%	0%	0%	0%					
More than 100 000 to 500 000 euros	100%	0%	0%	0%					
More than 500 000 to 2 mil. euros	80%	14%	3%	3%					
More than 2 mil. euros	78%	17%	4%	1%					

Q5a is the main currency that you use to settle your exports the same as the main currency that you use to settle your import purchases from outside the euro area?

Base: Companies in Germany, France and Italy that export outside the euro area and that invoice some of their services in currencies other than euros or pounds (n = 194)

2.2. The extent to which trade invoicing in euro is beneficial

- Half of the companies think that invoicing in euros for both imports and exports is beneficial for their company -

Half of the companies (50%) in France, Germany and Italy say that trade invoicing of exports and imports in euros with partners outside the euro is beneficial for their company (i.e. responses 4 and 5 on the scale of 1 to 5 where 1 is not at all beneficial and 5 is very beneficial), while 16% say it is not beneficial (responses 1 and 2)¹⁰.



Base: All companies in Germany, France and Italy (n = 300)

Companies in Germany (63%) are the most inclined to say that invoicing in euros with partners outside the euro is beneficial for their company, while those in France (45%) and Italy (42%) are less likely to say this. Over a fifth (22%) of companies in France say that invoicing in the same currency is not beneficial, with 14% in Italy and 11% in Germany taking this view.

 $^{^{10}}$ Q5b. Would you say that invoicing your provided or received services in euro with partners outside the euro area is beneficial for your company? Please indicate from 1 (not at all beneficial) to 5 (very beneficial).

		Total 'Not beneficial 1+2'	3	Total 'Beneficial 4+5'	Don't know
	TOTAL	16%	26%	50%	8%
	DE	11%	16%	63%	10%
0	FR	22%	27%	45%	6%
0	IT	14%	34%	42%	10%

Q6 Would you say that trade invoicing of exports and imports in euro with partners outside the euro area is beneficial for your company? Please indicate from 1 (not at all beneficial) to 5 (very beneficial):

Base: All companies in Germany, France and Italy (n = 300)

In the UK, nearly three out of ten companies (28%) say that invoicing in euros for services provided to partners based abroad is beneficial for their company, while 31% say it is not beneficial.



Q5c. Would you say that invoicing your provided or received services in euro with partners based abroad is beneficial for your firm? Please indicate from 1 (not at all beneficial) to 5 (very beneficial):

Smaller companies in France, Germany and Italy with under 250 employees (49-58%) are more likely to say that invoicing of exports and imports in euros with partners outside the euro is beneficial for their company, while companies from larger companies with over 250 employees (28-43%) are somewhat less likely to say this. This distinction does not occur in the UK.

Looking at sector, 58% of companies from energy companies in France, Germany and Italy say that invoicing of exports and imports in euros with partners outside the euro is beneficial for their company, compared with 50% from both electrical/mechanical companies and financial services companies, and none from aircraft/shipbuilding companies.

Companies with more than 2 million turnover (54%) are the most likely to say that invoicing of exports and imports in euros with partners outside the euro is beneficial for their company, while those from companies with up to 100,000 euros in turnover (25%) are the least likely to say this.

	Total 'Not beneficial 1+2'	Total 'Beneficial 4+5'	Don't know
TOTAL	16%	50%	8%
Company size			
1-9 employees	23%	49%	9%
10-49 employees	15%	49%	6%
50-249 employees	7%	58%	14%
250-499 employees	21%	43%	7%
500+ employees	0%	28%	29%
Sectors grouped (NACE)			
Aircraft and shipbuilding	100%	0%	0%
Energy	0%	58%	14%
Electrical and mechanical engineering	16%	50%	9%
Financial services	0%	50%	10%
Company's turnover in the last fis	scal year		
Up to 100 000 euros	0%	25%	25%
More than 100 000 to 500 000 euros	46%	46%	0%
More than 500 000 to 2 mil. euros	26%	49%	6%
More than 2 mil. euros	12%	54%	7%

Q6 Would you say that trade invoicing of exports and imports in euro with partners outside the euro area is beneficial for your company? Please indicate from 1 (not at all beneficial) to 5 (very beneficial):

Base: All companies in Germany, France and Italy (n = 300)

	Total 'Not beneficial 1+2'	Total 'Beneficial 4+5'	Don't know
UK	31%	28%	0%
Company size			
1-9 employees	30%	10%	0%
10-49 employees	40%	30%	0%
50-249 employees	17%	50%	0%
250-499 employees	0%	0%	0%
500+ employees	50%	50%	0%
Sectors grouped (NACE)			
Aircraft and shipbuilding	0%	0%	0%
Energy	0%	0%	0%
Electrical and mechanical engineering	0%	0%	0%
Financial services	31%	28%	0%
Company's turnover in the last fise	cal year		
Up to 100 000 euros	0%	50%	0%
More than 100 000 to 500 000 euros	75%	0%	0%
More than 500 000 to 2 mil. euros	0%	0%	0%
More than 2 mil. euros	21%	43%	0%

Q5c Would you say that invoicing your provided or received services in euro with partners based abroad is beneficial for your firm? Please indicate from 1 (not at all beneficial) to 5 (very beneficial):

3. DETERMINANTS OF TRADE INVOICING

In the third chapter of the report, the companies discuss the currency their company uses for export invoicing, the factors behind using the euro or other currencies, and which party in the transaction ultimately has the most say over which currency is used.

3.1. Factors that play a role in the choice of currency for trade invoicing

- The size of the recipient country is the main factor when it comes to invoicing exports in a currency other than the euro -

Companies were asked why they use currencies other than the euro for export invoicing, and were given a list of four likely factors that might play a role¹¹. It should be noted that the sample size for this question is relatively small, therefore the results ought to be treated with caution.

Half of the companies (49%) say that the recipient country is large and this is the currency used there, while nearly three out of ten (29%) say they use a currency other than the euro for exchange risk management. Nearly a quarter of companies (24%) cite sector characteristics as their reason for using other currencies, while under a fifth (17%) say that their competitors use other currencies and their company has to keep up with them. Around a quarter of companies (24%) cited other reasons for using currencies other than the euro for export invoicing.

Numerous companies commented here that the choice of currency is down to the customer, and that their company is flexible when it comes to invoicing in order to meet customers' needs.



Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

 $^{^{11}}$ Q7b. Do you invoice in a foreign currency for any of the following reasons? (MULTIPLE ANSWERS POSSIBLE)

Companies in France and Germany (both 55%) are more likely than those in Italy (36%) to say that they use a currency other than the euro because the recipient country is large and this is the currency used there. Nearly four out of ten companies in France (39%) cite exchange risk management, as opposed to 32% in Italy and 18% in Germany. While around three out of ten companies in France (29%) and Italy (28%) say that sector characteristics as their reason for using other currencies, only 15% of those in Germany give this answer. Companies in France (23%) are the most likely to say that their competitors use other currencies and their company has to keep up with them, followed by those in Italy (16%) and Germany (12%).

Q7 We would like to understand why you use currencies other than the euro for export invoicing. Do any of these factors play a role in your choice of currencies other than the euro for export invoicing? (MULTIPLE ANSWERS POSSIBLE)

		The recipient country is large and this is the currency used there	Exchange risk management	Sector characteristics - e.g. this is the dominant currency used for the specific product worldwide	Competitors use other currencies and your company has to keep up with them	Other	Don't know
	TOTAL	49%	29%	24%	17%	24%	7%
	DE	55%	18%	15%	12%	21%	9%
0	FR	55%	39%	29%	23%	19%	3%
0	IT	36%	32%	28%	16%	32%	8%
Highest percentage per				Lowest percent	age per country		

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

In the UK, nearly six out of ten companies (59%) say that they use the euro for invoicing for services they provide abroad because the recipient country is large and this is the currency used there. Nearly half (48%) cite sector characteristics as their reason for using the euro, while under four out of ten companies (38%) say they do this because of exchange risk management. A third of companies (34%) say they company invoices in euros because their competitors use other currencies and their company has to keep up with them.

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Q6c. We would like to understand why you use the euro for invoicing the services you provide to entities based abroad. Do any of these factors play a role in your choice?

Base: All companies in the UK (n = 100)

The size of the company in terms of employees appears to make relatively little difference here.

Financial services companies are more likely than electrical/mechanical companies to use currencies other than the euro because of exchange management risk (50% vs. 28%) and due to sector characteristics (33% vs. 23%).

	The recipient country is large and this is the currency used there	Exchange risk management	Sector characteristics - e.g. this is the dominant currency used for the specific product worldwide	Competitors use other currencies and your company has to keep up with them	Other	Don't know				
TOTAL	49%	29%	24%	17%	24%	7%				
Company size										
1-9 employees	50%	19%	38%	13%	25%	0%				
10-49 employees	29%	26%	15%	15%	41%	6%				
50-249 employees	71%	38%	21%	25%	4%	13%				
250-499 employees	64%	36%	36%	9%	0%	9%				
500+ employees	50%	25%	25%	25%	50%	0%				
Sectors grouped (NACE)										
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%				
Energy	0%	0%	0%	0%	0%	0%				
Electrical and mechanical engineering	49%	28%	23%	18%	24%	7%				
Financial services	50%	50%	33%	0%	17%	0%				

Q7 We would like to understand why you use currencies other than the euro for export invoicing. Do any of these factors play a role in your choice of currencies other than the euro for export invoicing? (MULTIPLE ANSWERS POSSIBLE)

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

3.2. Importance of various factors when choosing the euro as the invoicing currency

- Contract duration and delivery time is the main reason for invoicing in euros for companies in France, Germany and Italy -

Companies were now asked how important five particular factors were when choosing the euro as their invoicing currency¹². Companies were asked to respond on a scale from 1 to 5, where 1 is "Not important" and 5 is "Very important".

Nearly half (49%) say that contract duration and delivery time are important (i.e. responses 4 and 5 combined), while 28% say this is not an important factor (i.e. responses 1 and 2 combined).

Over four out of ten companies (45%) say that transaction size is an important factor when choosing the euro, with 17% saying this is neither important nor unimportant, and 29% feeling that transaction size is not an important consideration.

The exchange rate and the volatility of the euro is seen as an important factor when choosing the euro for invoicing by 45% of companies but around a quarter (26%) say this is not an important factor.

Less than a third of companies (32%) think that interest rates are an important factor whereas 42% think they are not important at all.

Over a quarter of companies (28%) say that macroeconomic shocks are an important factor when choosing the euro as their invoicing currency while a third (34%) say that macroeconomic shocks are not important in this regard.

 $^{^{12}}$ Q12b. How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important).



Q13. How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important):

Base: All companies in Germany, France and Italy (n = 300)

Companies in Italy (57%) and Germany (50%) are more likely than those in France (38%) to say that contract duration and delivery time is important when it comes to choosing the euro. Companies in Italy are also the most likely to say that transaction size (54% vs. 43% in Germany and 38% in France), interest rates (47% vs. 30% in France and 18% in Germany) and macroeconomic shocks (37% vs. 27% in France and 19% in Germany) are important.

Q13 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important):

		Contract duration and delivery time		Transaction size		The exchange rate volatility of the euro		Interest rates			Macroeconomic sho					
		Total 'Not important 1+2'	3	Total 'Important 4+5'	Total 'Not important 1+2'	3	Total 'Important 4+5'	Total 'Not important 1+2'	3	Total 'Important 4+5'	Total 'Not important 1+2'	3	Total 'Important 4+5'	Total 'Not important 1+2'	3	'n
	TOTAL	28%	18%	49%	29%	17%	45%	26%	21%	45%	42%	17%	32%	34%	24%	
	DE	34%	12%	50%	32%	15%	43%	30%	15%	44%	52%	17%	18%	45%	18%	Т
0	FR	35%	19%	38%	33%	20%	38%	25%	21%	47%	42%	20%	30%	33%	31%	Т
0	IT	16%	24%	57%	23%	15%	54%	22%	27%	45%	34%	13%	47%	25%	23%	

Base: All companies in Germany, France and Italy (n = 300)

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In contrast, companies in the UK are most likely to say that the exchange rate and the volatility of the euro is the most important factor when choosing the euro for invoicing: 38% say this is important, while 14% say it is neither important nor unimportant, and 35% say this is not an important factor.

Over three out of ten UK companies (31%) say that transaction size is an important factor when choosing the euro, with 12% saying this is neither important nor unimportant, and 44% viewing transaction size as not important.

Nearly a quarter of companies (23%) say that contract duration and delivery time is important when it comes to choosing the euro for invoicing, while 12% see this as being neither important nor unimportant, and over half (51%) say this is not an important factor.

A fifth of companies (20%) say that interest rates are an important factor; 13% think that interest rates are being neither important nor unimportant, and 54% believe that they are not important.

Just 15% of UK companies say that macroeconomic shocks are an important factor when choosing the euro, with 12% saying they are neither important nor unimportant, and half (50%) saying that they are not important.



Q12c. How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important):

There is no clear difference here between large and small companies.

Companies from financial services companies are the most likely to think that exchange rate volatility (70% vs. 45% from electrical/mechanical companies and 14% from energy companies) and macroeconomic shocks (40% vs. 27% from electrical/mechanical companies and 14% from energy companies) are important factors. But they are the least likely to think that interest rates are important factors (10% vs. 32% from electrical/mechanical companies and 43% from energy companies).

The base size for the companies in the UK is too small to draw any conclusions.

Q13 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important):

Total 'Important 4+5'										
	Contract duration and delivery time	Transaction size	The exchange rate volatility of the euro	Interest rates	Macroeconomic shocks					
TOTAL	49%	45%	45%	32%	28%					
Company size										
1-9 employees	37%	33%	40%	24%	29%					
10-49 employees	54%	52%	49%	38%	31%					
50-249 employees	52%	45%	45%	31%	22%					
250-499 employees	43%	42%	50%	14%	14%					
500+ employees	43%	43%	14%	29%	28%					
Sectors grouped (NACE)										
Aircraft and shipbuilding	100%	100%	100%	100%	100%					
Energy	43%	43%	14%	43%	14%					
Electrical and mechanical engineering	48%	44%	45%	32%	27%					
Financial services	40%	60%	70%	10%	40%					

Base: All companies in Germany, France and Italy (n = 300)

Q12c How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Total 'Important 4+5'

	The exchange rate volatility of the euro	Transaction size	Contract duration and delivery time	Interest rates	Macroeconomic shocks
UK	38%	31%	23%	20%	15%
Company size					
1-9 employees	33%	31%	20%	19%	13%
10-49 employees	50%	30%	35%	25%	15%
50-249 employees	46%	46%	31%	23%	23%
250-499 employees	100%	0%	0%	0%	100%
500+ employees	0%	0%	0%	0%	0%
Sectors grouped (NACE)					
Aircraft and shipbuilding	0%	0%	0%	0%	0%
Energy	0%	0%	0%	0%	0%
Electrical and mechanical engineering	0%	0%	0%	0%	0%
Financial services	38%	31%	23%	20%	15%

3.3. Strongest bargaining power for setting the invoicing currency

- The exporter is seen as having the most bargaining power when it comes to settling the invoice currency -

The exporter has the strongest bargaining power in settling the invoice currency, according to 36% of companies, while a fifth of companies (20%) say that the larger company has the strongest bargaining power¹³. Less than a fifth of companies (17%) say that the importer has the strongest bargaining power, and a similar proportion (18%) say spontaneously that it depends case by case.



Q8. In your sector who has the strongest bargaining power in setting the invoicing currency?

Base: All companies in Germany, France and Italy (n = 300)

Companies in Italy (44%) are more likely than those in France and Germany (both 33%) to think that the exporter has the strongest bargaining power. But those in France are the most inclined to say that the larger company (27% vs. 22% from Italy and 11% from Germany) and the importer (26% vs. 16% from Germany and 9% from Italy) have the strongest bargaining power.

 $^{^{13}}$ Q7b. In your sector who has the strongest bargaining power in setting the invoicing currency?

		The exporter	The larger company	The importer	Depends case by case (SPONTANEOUS)	Don't know
	TOTAL	36%	20%	17%	18%	9%
	DE	33%	11%	16%	34%	6%
0	FR	33%	27%	26%	8%	<mark>6%</mark>
0	IT	44%	22%	9%	11%	14%

Q8 In your sector who has the strongest bargaining power in setting the invoicing currency?

Base: All companies in Germany, France and Italy (n = 300)

In the UK, the invoicing entity (44%) is thought to have the strongest bargaining power, followed by the customer being invoiced (22%), and the larger company (8%). 14% say it depends case by case.





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Companies from companies with over 250 employees (36-57%) appear slightly more likely on average to say that the exporter has the strongest bargaining power than those from companies employing under 250 people (28-41%). However, the size of the company has relatively little impact on whether he or she thinks that larger companies have more bargaining power. Company size also appears to make relatively little difference in the UK.

All companies from aircraft/shipbuilding companies in France, Germany and Italy say that the importer has the strongest bargaining power; this compared with 40% of those in financial services, 29% at energy companies, and 16% at electrical/mechanical companies. Four out of ten companies (40%) from financial services companies think that the exporter has the strongest bargaining power, followed by 37% from electrical/mechanical companies, and 14% from energy companies. Companies from energy companies (29%) are the most likely to think that the larger company has the strongest bargaining power, followed by those from electrical/mechanical companies (20%) and from financial services companies (10%).

	The importer	The exporter	The larger company	Depends case by case (SPONTANEOUS)	Don't know				
TOTAL	17%	36%	20%	18%	9%				
Company size									
1-9 employees	19%	28%	17%	24%	12%				
10-49 employees	13%	41%	24%	11%	11%				
50-249 employees	21%	35%	17%	24%	3%				
250-499 employees	29%	36%	14%	21%	0%				
500+ employees	15%	57%	14%	14%	0%				
Sectors grouped (NACE)									
Aircraft and shipbuilding	100%	0%	0%	0%	0%				
Energy	29%	14%	29%	14%	14%				
Electrical and mechanical engineering	16%	37%	20%	18%	9%				
Financial services	40%	40%	10%	10%	0%				

Q8 In your sector who has the strongest bargaining power in setting the invoicing currency?

Base: All companies in Germany, France and Italy (n = 300)

	The invoicing entity	The customer being invoiced	The larger company	Depends case by case (SPONTANEOUS)	Don't know
UK	44%	22%	8%	14%	12%
Company size					
1-9 employees	46%	18%	7%	16%	13%
10-49 employees	40%	25%	10%	10%	15%
50-249 employees	54%	23%	7%	8%	8%
250-499 employees	0%	0%	100%	0%	0%
500+ employees	0%	100%	0%	0%	0%
Sectors grouped (NACE)					
Aircraft and shipbuilding	0%	0%	0%	0%	0%
Energy	0%	0%	0%	0%	0%
Electrical and mechanical engineering	0%	0%	0%	0%	0%
Financial services	44%	22%	8%	14%	12%

Q7c In your sector who has the strongest bargaining power in setting the invoicing currency?

4. OBSTACLES TO USING THE EURO IN INTERNATIONAL TRADE AND TRADE INVOICING IN OTHER CURRENCIES

The next chapter of the report focuses on the reasons why companies in France, Germany and Italy may choose to invoice in a foreign currency, and in the case of companies from the UK why they might choose not to invoice in euros.

- Accounting and regulatory or legal considerations are the main reasons for invoicing in a foreign currency -

Accounting reasons (28%) and regulatory or legal reasons (26%) are the explanations most commonly given by companies for invoicing in a foreign currency¹⁴. Over a fifth of companies (21%) cite international payment infrastructure restrictions, while 13% mention the availability of trade credit, and 9% say their company does not invoice in a foreign currency. Three out of ten companies (30%) don't know why their company invoices in a foreign currency.

It should be noted that the sample size for this question is relatively small, therefore the results ought to be treated with caution.



Q9. Do you invoice in a foreign currency for any of the following reasons?

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

Companies in Germany (33%) are more likely than those in Italy (28%) and France (23%) to say their company invoices in a foreign currency for accounting reasons, whereas those in France (32%) are more likely to mention regulatory or legal reasons (vs. 24% from Italy and 21% from Germany). Companies in Italy (32%) and France (29%) are much more likely than those in Germany (6%) to cite international payment

¹⁴ Q8b. Do you invoice in a foreign currency for any of the following reasons? (MULTIPLE ANSWERS POSSIBLE)

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infrastructure restrictions, and also the availability of trade credit (23% from France and 20% from Italy, vs. none from Germany). Companies in France (16%) are the most likely to say that their company does not invoice in a foreign currency (vs. 9% from Germany and none from Italy).

	(MULTIPLE ANSWERS POSSIBLE)								
		Accounting reasons	Regulatory or legal reasons (in your or your partner's home country)	International payment infrastructure restrictions (at home or abroad) which force you to use a currency other than the euro	Availability of trade credit	Your company does not invoice in a foreign currency	Don't know		
	TOTAL	28%	26%	21%	13%	9%	30%		
	DE	33%	21%	6%	0%	9%	39%		
0	FR	23%	32%	29%	23%	16%	16%		
0	IT	28%	24%	32%	20%	0%	36%		
	Highest percentage per country			Lowest percenta	age per country	1			
		nighest percer	ntage per item	Lowest percentage per item					

Q9 Do you invoice in a foreign currency for any of the following reasons? (MULTIPLE ANSWERS POSSIBLE)

In the UK, over three out of ten companies say that their company does not invoice in euros because their company does not invoice in foreign currencies (33%), or due to accounting reasons (31%). Over a tenth cite international payment infrastructure restrictions (14%), or regulatory or legal reasons (11%). Just 6% mention the availability of trade credit. Over a quarter of companies (27%) don't know why their company does not invoice in euros.

Q8c. Do any of the following reasons play a role in your decision not to invoice in euro?



Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

Larger companies are the most likely not to invoice in a foreign currency: 18-25% of companies from companies with over 250 employees say this, compared with 4-9% of companies from companies with under 250 employees. Larger companies are also more likely to cite accounting reasons: 45-50% of companies from larger companies do so, as opposed to 21-31% of companies from companies with under 250 employees. They are also more likely to mention international payment infrastructure restrictions (36-50% vs. 13-25%). However, smaller companies (12-50% vs. 0-18%) are generally more likely to cite regulatory or legal reasons for invoicing in a foreign currency. In the UK, larger companies are more likely to cite a range of reasons for not invoicing in euros: for example, 50-100% of companies with over 250 employees mention international payment infrastructure restrictions, compared with just 10-20% of companies with under 250 employees say their company does not invoice in foreign currencies, no UK companies with over 250 employees say theirs.

Companies from financial services companies are more likely than those from electrical/mechanical companies to mention a range of reasons for invoicing in a foreign currency. For example, 33% of financial services companies, but only 12% of electrical/mechanical companies, say that the availability of trade credit is a reason for invoicing in a foreign currency.

Companies with a smaller turnover are more likely to say that the availability of credit is a reason: 33-100% of companies with less than 500,000 euros in turnover do so, compared with 7-14% of companies with more than 500,000 euros. And while all companies with a turnover of 100,000 to 500,000 euros say that there were accounting reasons for invoicing in a foreign currency, only 13-23% of companies with a turnover of more than 500,000 euros had this reason. In the UK, companies with a higher turnover were more likely to cite international payment infrastructure restrictions as a reason for not invoicing in euros: 32% of companies with over 2 million euros in turnover did so, compared with 0-11% of companies with a turnover of below 2 million euros.

	Regulatory or legal reasons (in your or your partner's home country)	Accounting reasons	International payment infrastructure restrictions (at home or abroad) which force you to use a currency other than the euro	Availability of trade credit	Your company does not invoice in a foreign currency	Don't know	
TOTAL	26%	28%	21%	13%	9%	30%	
Company size							
1-9 employees	31%	31%	25%	6%	6%	25%	
10-49 employees	12%	21%	18%	15%	9%	41%	
50-249 employees	50%	25%	13%	21%	4%	29%	
250-499 employees	18%	45%	36%	0%	18%	18%	
500+ employees	0%	50%	50%	25%	25%	0%	
Sectors grouped (NACE)							
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%	
Energy	0%	0%	0%	0%	0%	0%	
Electrical and mechanical engineering	24%	28%	20%	12%	10%	31%	
Financial services	50%	33%	33%	33%	0%	17%	
Company's turnover in the last fiscal year							
Up to 100 000 euros	0%	0%	0%	100%	0%	0%	
More than 100 000 to 500 000 euros	33%	100%	33%	33%	0%	0%	
More than 500 000 to 2 mil. euros	20%	13%	33%	7%	7%	40%	
More than 2 mil. euros	32%	23%	18%	14%	9%	34%	

Q9 Do you invoice in a foreign currency for any of the following reasons? (MULTIPLE ANSWERS POSSIBLE)

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

	Your company does not invoice in a foreign currency	Accounting reasons	International payment infrastructure restrictions (at home or abroad) which force you to use a currency other than the euro	Regulatory or legal reasons (in your or your partner's home country)	Availability of trade credit	Don't know
UK	33%	31%	14%	11%	6%	27%
Company size						
1-9 employees	36%	31%	10%	7%	3%	26%
10-49 employees	30%	40%	20%	25%	10%	20%
50-249 employees	31%	15%	15%	8%	0%	38%
250-499 employees	0%	100%	100%	100%	100%	0%
500+ employees	0%	0%	50%	0%	50%	50%
Sectors grouped (NACE)						
Aircraft and shipbuilding	0%	0%	0%	0%	0%	0%
Energy	0%	0%	0%	0%	0%	0%
Electrical and mechanical engineering	0%	0%	0%	0%	0%	0%
Financial services	33%	31%	14%	11%	6%	27%
Company's turnover in the last fis	cal year					
Up to 100 000 euros	22%	33%	0%	11%	11%	44%
More than 100 000 to 500 000 euros	29%	38%	10%	10%	0%	24%
More than 500 000 to 2 mil. euros	22%	33%	11%	22%	11%	33%
More than 2 mil. euros	20%	32%	32%	12%	12%	28%

Q8c Do any of the following reasons play a role in your decision not to invoice in euro? (MULTIPLE ANSWERS POSSIBLE)

- Only a small minority of companies say there are other trade practices which do not allow them to invoice in euros -

Very few companies in France, Germany and Italy say there are any other trade practices which do not allow them to set the euro as their invoicing currency: 93% say there are no such practices, while only 4% say that there are¹⁵. As before, the sample size is relatively small here and the results should be treated with caution.





TOTAL

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

The results are similar across the three countries: in Germany 6% of companies say that there are other trade practices which do not allow them to set the euro as their invoicing currency, followed by 3% in France, and none in Italy.

¹⁵ Q9b: Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

		Yes	No	Don't know
	TOTAL	4%	93%	3%
	DE	6%	91%	3%
0	FR	3%	97%	0%
0	IT	0%	92%	8%

Q10 Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

The UK results are in line with those from the other three countries: only 4% of companies say that there are other trade practices which do not allow them to set the euro as their invoicing currency, with 94% saying that there are no such practices.





Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

However, 12% of companies at companies with only 1-9 employees say that there are other trade practices which do not allow them to set the euro as their invoicing currency. One company, for example, comments that some U.S. customers only accept payment in dollars, while another says that individual clients may impose specific conditions. In the UK, 8% of companies from companies with 50-249 employees also answer 'yes' here.

	Yes	No	Don't know
TOTAL	4%	93%	3%
Company size			
1-9 employees	12%	88%	0%
10-49 employees	3%	97%	0%
50-249 employees	0%	92%	8%
250-499 employees	0%	100%	0%
500+ employees	0%	75%	25%

Q10 Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

	Yes	No	Don't know
UK	4%	94%	2%
Company size			
1-9 employees	5%	93%	2%
10-49 employees	0%	100%	0%
50-249 employees	8%	84%	8%
250-499 employees	0%	100%	0%
500+ employees	0%	100%	0%

Q9c Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

5. ADDRESSING EXCHANGE RATE RISKS IN INTERNATIONAL TRADE ACTIVITIES

In this chapter focusing on exchange rate risk, companies are asked whether they take measures to reduce these risks, and if not, why not.

- Less than half of the companies take measures to address exchange rate risks in their international dealings -

Companies are evenly divided on the question of whether they take measures to address exchange rate risks in their international trade activities: 46% say they do take such measures, while 47% do not¹⁶. The sample size for this question is relatively small and the results should be treated with caution.



Q11. Do you take measures to address exchange rate risks in your international trade activities?

TOTAL

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

 $^{^{16}}$ Q10b. Do you take measures to address exchange rate risks in your international trade activities?

Companies in France (55%) are the most likely to take measures to address exchange rate risks, followed by those in Germany (49%) and Italy (32%). Italy is the only country in which a majority of companies do not take such measures (60% vs. 32%).

		Yes	No	Don't know
	TOTAL	46%	47%	7%
	DE	49%	39%	12%
0	FR	55%	45%	0%
0	IT	32%	60%	8%

Q11 Do you take measures to address exchange rate risks in your international trade activities?

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

The UK results are similar to those from Italy, as discussed above. Only 30% of UK companies say they take measures to address exchange rate risks in their international trade activities with entities based abroad, whereas nearly two-thirds of companies (65%) do not do this.



Q10c. Do you take measures to address exchange rate risks in your international trade activities with entities based abroad?

Base: All companies in the UK (n = 100)

🌐 uk

Larger companies are more likely to take these types of measures: 55-75% of companies with over 50 employees do so, compared with 25-35% of companies with under 50 employees. Similarly in the UK, all companies with over 250 employees take such measures, compared with 18-46% of companies with under 250 employees.

Companies from electrical/mechanical companies are more likely than those from financial services companies (47% vs. 33%) to say that they take measures to address exchange rate risks.

While 40-57% of companies with a turnover of more than 500,000 euros take these measures, none of those with a turnover of less than 500,000 euros do so. This is not the case in the UK, though companies there with a turnover of more than 2 million euros are more likely than others to have taken such measures (40% vs. 14-22%).

	Yes	No	Don't know
TOTAL	46%	47%	7%
Company size			
1-9 employees	25%	75%	0%
10-49 employees	35%	56%	9%
50-249 employees	67%	29%	4%
250-499 employees	55%	36%	9%
500+ employees	75%	0%	25%
Sectors grouped (NACE)			
Aircraft and shipbuilding	0%	0%	0%
Energy	0%	0%	0%
Electrical and mechanical engineering	47%	46%	7%
Financial services	33%	67%	0%
Company's turnover in the last fis	cal year		
Up to 100 000 euros	0%	100%	0%
More than 100 000 to 500 000 euros	0%	100%	0%
More than 500 000 to 2 mil. euros	40%	60%	0%
More than 2 mil. euros	57%	41%	2%

Q11 Do you take measures to address exchange rate risks in your international trade activities?

Base: Companies in Germany, France and Italy that invoice in currencies other than the euro (n = 89)

	Yes	No	Don't know
UK	30%	65%	5%
Company size			
1-9 employees	18%	77%	5%
10-49 employees	45%	45%	10%
50-249 employees	46%	54%	0%
250-499 employees	100%	0%	0%
500+ employees	100%	0%	0%
Sectors grouped (NACE)			
Aircraft and shipbuilding	0%	0%	0%
Energy	0%	0%	0%
Electrical and mechanical engineering	0%	0%	0%
Financial services	30%	65%	5%
Company's turnover in the last fis	cal year		
Up to 100 000 euros	22%	67%	11%
More than 100 000 to 500 000 euros	14%	81%	5%
More than 500 000 to 2 mil. euros	22%	78%	0%
More than 2 mil. euros	40%	56%	4%

Q10c Do you take measures to address exchange rate risks in your international trade activities with entities based abroad?

Base: All companies in the UK (n = 100)

- Four out of ten companies say that hedging instruments that reduce exchange rate risks are too expensive -

Companies who do not address exchange rate risks were asked why they do not do this¹⁷. Four out of ten companies (40%) say that hedging instruments are too costly, while nearly half (48%) cite other reasons. These reasons in numerous cases include an established relationship based on trust with particular clients, or a fixed exchange rate agreed with a client that eliminates exchange rate risk. Others say that foreign trade is a sufficiently small component of their business for them not to worry about exchange rate risks, while others simply say that exchange rates have never been an issue for their business. It should be noted that the sample size for this question is relatively small, therefore the results ought to be treated with caution.

 $^{^{17}}$ Q11b: Why do you not address the exchange rate risks in your international trade activities?

FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade"



TOTAL

Base: Companies in Germany, France and Italy that do not take measures to address exchange rate risks (n = 42)

Companies in Germany (54%) are the most likely to address exchange rate risks, followed by those in Italy (40%) and France (29%). In France (64% vs. 29%) and Italy (47% vs. 40%) a majority of companies do not address these risks for other reasons.

Q12 Why do you not address the exchange rate risks in your international trade activities?

		Because hedging instruments are too costly	Because hedging instruments are not available	Any other reasons	Don't know
	TOTAL	40%	2%	48%	10%
	DE	54%	0%	31%	15%
0	FR	29%	7%	64%	0%
0	IT	40%	0%	47%	13%

Base: Companies in Germany, France and Italy that do not take measures to address exchange rate risks (n = 42)

FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade"

In the UK, most companies (63%) who do not take measure to address exchange rate risks give other reasons. Just 17% say that hedging instruments are too costly. Many companies say that they don't see the need to take such measures, because they perceive the risk to be low, because a relatively small proportion of their business is done in foreign currencies, or because they only do business in British pounds.



Base: Companies in the UK that do not take measures to address exchange rate risks (n = 65)

There is no clear link between the size or turnover of a company and the likelihood that it finds hedging instruments too costly.

However, financial services companies the three countries are more likely than electrical/mechanical companies to give this reason (75% vs. 37%).

	Because hedging instruments are not available	Because hedging instruments are too costly	Any other reasons	Don't know
TOTAL	2%	40%	48%	10%
Company size				
1-9 employees	0%	50%	50%	0%
10-49 employees	0%	32%	58%	10%
50-249 employees	0%	43%	28%	29%
250-499 employees	25%	50%	25%	0%
500+ employees	0%	0%	0%	0%
Sectors grouped (NACE)				
Aircraft and shipbuilding	0%	0%	0%	0%
Energy	0%	0%	0%	0%
Electrical and mechanical engineering	3%	37%	50%	10%
Financial services	0%	75%	25%	0%

Q12 Why do you not address the exchange rate risks in your international trade activities?

Base: Companies in Germany, France and Italy that do not take measures to address exchange rate risks (n = 42)

6. THE EFFECT OF THE RECENT EUROPEAN SOVEREIGN DEBT CRISIS ON THE USE OF THE EURO IN INVOICING PRACTICES

The sixth chapter of the report gauges the impact of the recent European financial crisis on companies' use of the euro for invoicing purposes.

- Only around a tenth of companies say that the European debt crisis has had an impact on their use of the euro in invoicing -

Nearly three quarters of companies (73%) say that the recent European sovereign debt crisis has not affected their use of the euro in invoicing¹⁸. 13% say it has affected them somewhat, and 11% say that the debt crisis has affected their use of the euro.

Q14. To what extent has the recent European sovereign debt crisis affected the



TOTAL

Base: All companies in Germany, France and Italy (n = 300)

 $^{^{18}}$ Q13b: To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected)

Companies in Italy (19%) are the most likely to say that the debt crisis has affected their use of the euro, followed by those in France (11%) and Germany (5%).

		Total 'Not affected 1+2'	3	Total 'Affected 4+5'	Don't know
	TOTAL	73%	13%	11%	3%
	DE	81%	9%	5%	5%
0	FR	81%	8%	11%	0%
0	IT	57%	22%	19%	2%

Q14 To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected):

Base:	All	companies	in	Germany.	France	and	Italy ((n	$= 300^{\circ}$)

In the UK, a substantial majority of companies (86%) say that the recent European sovereign debt crisis has not affected their use of the euro in invoicing. Just 7% report a moderate effect, and 6% say it has not affected them at all.



While the size of the company in terms of number of employees makes relatively little difference here, companies in some sectors appear to have been more affected by the debt crisis than others. A fifth (20%) of financial services companies say that the debt crisis had an effect on their use of the euro in invoicing, compared with 14% of energy companies, 11% of electrical/mechanical companies, and no aircraft/shipbuilding companies.

Three quarters (75%) of companies with a turnover of up to 100,000 euros a year say the debt crisis has affected them, compared with 12-23% of companies with a turnover of more than 100,000 euros.

Q14 To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected):

	Total 'Not affected 1+2'	Total 'Affected 4+5'	Don't know				
TOTAL	73%	11%	3%				
Company size							
1-9 employees	78%	12%	1%				
10-49 employees	69%	13%	2%				
50-249 employees	72%	9%	5%				
250-499 employees	93%	7%	0%				
500+ employees	72%	14%	0%				
Sectors grouped (NACE)							
Aircraft and shipbuilding	100%	0%	0%				
Energy	86%	14%	0%				
Electrical and mechanical engineering	73%	11%	2%				
Financial services	60%	20%	10%				
Company's turnover in the last fiscal year							
Up to 100 000 euros	25%	75%	0%				
More than 100 000 to 500 000 euros	69%	23%	8%				
More than 500 000 to 2 mil. euros	80%	12%	2%				
More than 2 mil. euros	74%	12%	1%				

Base: All companies in Germany, France and Italy (n = 300)

7. WHAT WOULD HAVE TO CHANGE IN ORDER TO START USING THE EURO MORE IN INTERNATIONAL TRADE

- Most companies say their company is already committed to using one currency or another -

Companies were asked¹⁹ what would need to change for them to start using the euro more in international trade. This was an open-ended question, to which they were allowed to give any answer.

Many companies say that there is nothing that would change their company's approach when it comes to currency selection: either they are already fully committed to using the euro, or are already fully committed to using a different currency, such as the U.S. dollar, when dealing with particular customers. Some point out that the choice of currency is down to the customer, and so the exporter has no say anyway.

However, some companies said it would be helpful for the euro to stabilize in relation to other currencies, while others say that improvements to the banking system and lower banking charges would encourage them to use the euro more. While the value of the euro has recently declined, some companies say it would be helpful for exporters if it falls even further: if it reaches parity with the U.S. dollar, they say, that would help them to use the euro more in international trade.

The euro needs to gain more acceptance abroad, others point out, saying that at the moment not enough foreign customers are willing to be invoiced in euros. This would be boosted by a more politically and economically coherent Europe, companies say.

As an example, a company based in the UK from the administration of financial markets (NACE sector code K66.1.1) reports the following:

"The European Union needs to open for countries outside the EC for trade and also encourage people to do trade outside the EU."

¹⁹ Q15x: What would have to change in order for you to start using the euro more in international trade?
ANNEXES

TECHNICAL SPECIFICATIONS

FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade" TECHNICAL SPECIFICATIONS

Between the 20th of July and 7th of August 2015, TNS Political & Social, a consortium created between TNS political & social, TNS UK and TNS opinion, carried out the survey FLASH EUROBAROMETER 424 on the "Possible obstacles to using the euro in international trade".

This survey has been requested by the EUROPEAN COMMISSION, Directorate-General for Economic and Financial Affairs. It is a business to business (Level B) survey co-ordinated by the Directorate-General for Communication ('Strategy, Corporate Communication Actions and Eurobarometer' Unit). The FLASH EUROBAROMETER 424 covers businesses employing 1 or more persons in the following sectors: (i) aircraft and shipbuilding, (ii) energy, (iii) financial services (excluding insurance), and (iv) electrical and mechanical engineering. The survey covered companies involved in international trade with partners outside the Eurozone in Italy, France and Germany. In addition, the survey covered companies in the UK in the sector of financial services as detailed above, which are engaged in trade with partners in the Eurozone or with partners outside EU.

All interviews were carried using the TNS e-Call center (our centralized CATI system). The sample was selected from an international business database, with some additional sample from local sources in countries where necessary.

Readers are reminded that survey results are <u>estimations</u>, the accuracy of which, everything being equal, rests upon the sample size and upon the observed percentage. With samples of about 500 interviews, the real percentages vary within the following confidence limits:

Statistical Margins due to the sampling process	
(at the 95% level of confidence)	

various sample sizes are in rows							various observed results are in column				
	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	
	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	
N=50	6,0	8,3	9,9	11,1	12,0	12,7	13,2	13,6	13,8	13,9	N=50
N=500	1,9	2,6	3,1	3,5	3,8	4,0	4,2	4,3	4,4	4,4	N=500
N=1000	1,4	1,9	2,2	2,5	2,7	2,8	3,0	3,0	3,1	3,1	N=1000
N=1500	1,1	1,5	1,8	2,0	2,2	2,3	2,4	2,5	2,5	2,5	N=1500
N=2000	1,0	1,3	1,6	1,8	1,9	2,0	2,1	2,1	2,2	2,2	N=2000
N=3000	0,8	1,1	1,3	1,4	1,5	1,6	1,7	1,8	1,8	1,8	N=3000
N=4000	0,7	0,9	1,1	1,2	1,3	1,4	1,5	1,5	1,5	1,5	N=4000
N=5000	0,6	0,8	1,0	1,1	1,2	1,3	1,3	1,4	1,4	1,4	N=5000
N=6000	0,6	0,8	0,9	1,0	1,1	1,2	1,2	1,2	1,3	1,3	N=6000
N=7000	0,5	0,7	0,8	0,9	1,0	1,1	1,1	1,1	1,2	1,2	N=7000
N=7500	0,5	0,7	0,8	0,9	1,0	1,0	1,1	1,1	1,1	1,1	N=7500
N=8000	0,5	0,7	0,8	0,9	0,9	1,0	1,0	1,1	1,1	1,1	N=8000
N=9000	0,5	0,6	0,7	0,8	0,9	0,9	1,0	1,0	1,0	1,0	N=9000
N=10000	0,4	0,6	0,7	0,8	0,8	0,9	0,9	1,0	1,0	1,0	N=10000
N=11000	0,4	0,6	0,7	0,7	0,8	0,9	0,9	0,9	0,9	0,9	N=11000
N=12000	0,4	0,5	0,6	0,7	0,8	0,8	0,9	0,9	0,9	0,9	N=12000
N=13000	0,4	0,5	0,6	0,7	0,7	0,8	0,8	0,8	0,9	0,9	N=13000
N=14000	0,4	0,5	0,6	0,7	0,7	0,8	0,8	0,8	0,8	0,8	N=14000
N=15000	0,3	0,5	0,6	0,6	0,7	0,7	0,8	0,8	0,8	0,8	N=15000
	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	
	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	

ABBR.	BBR. COUNTRIES INSTITUTES		N° INTERVIEWS	FIELD DA	WORK TES	UNIVERSE ¹	ESTIMATE UNIVERS
DE	Germany	TNS Deutschland	100	20/07/2015	07/08/2015	121,161	3,635
FR	France	TNS Sofres	100	20/07/2015	07/08/2015	36,408	1,820
IT	Italy	TNS Infratest	100	20/07/2015	07/08/2015	71,009	1,420
UK	United Kingdom	TNS UK	100	20/07/2015	07/08/2015	37,987	1,140
TOTAL			400	20/07/2015	07/08/2015	266,565	8,015

¹ Number of businesses employing 1 or more persons in the following sectors: (i) aircraft and shipbuilding, (ii) energy, (iii) financial services (excluding insurance), and (iv) electrical and mechanical engineering. 2 Estimated number of businesses employing 1 or more persons in the following sectors: (i) aircraft and shipbuilding, (ii) energy, (iii) financial services (excluding insurance), and (iv) electrical and mechanical engineering involved in international trade with partners outside the Eurozone in Italy, France and Germany (incidence rate: 2%, 5% and 3% respectively); and in the sector of financial services as detailed above, which are engaged in trade with partners in the Eurozone or with partners outside EU in the UK (incidence rate: 3%).

QUESTIONNAIRE

1 2 3 ERS GO TO D2 or trade and financial reporting? 1 2 3 1 2 3 1 2 3 4 5 6
1 2 3 ERS GO TO D2 or trade and financial reporting? 1 2 3 4 5 6
1 2 3 2 3 ERS GO TO D2 or trade and financial reporting? 1 2 3 1 2 3 4 5 6
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2 3 ERS GO TO D2 or trade and financial reporting? 1 2 1 2 3 4 5 6
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or trade and financial reporting?
1 2 3 4 5
1 2 3 4 5
2 3 4 5
3 4 5
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C
1 0
ů
- OTHERS GO TO D3
any have in the last fiscal year? Please state t at the group level.
1
2
3
1 4
5

D4	What was the turnover of your company in the last fiscal year? Please state the turnov your legal entity, not at the group level.	ver in								
	(Code DK/NA/REFUSAL as 999)									
		In local curr ency								
D5	Could you please estimate the share of your exports as a percentage of turnover in the fiscal year or latest available year, before tax?	e last								
	(READ OUT – ONE ANSWER ONLY)									
	None 1									
	2 26%-50% 3									
	51%-75% 4									
	76%-100% 5									
	DK/NA 6									
	NEW									
	ASK D6ab AND D6c IF CODES 2 TO 6 IN D5									
	ASK D6ab ONLY IN FR, DE AND IT									
D6ab	And approximately what percentage of your exports went outside the euro area in the fiscal year or latest available year, before tax?	e last								
	(READ OUT – ONE ANSWER ONLY)									
	None 1									
	Below 26% 2									
	26%-50% 3									
	51%-75% 4									
	76%-100% 5									
	DK/NA 6									

ASK D6c ONLY IN UK

D6c And approximately what percentage of your exports went to the euro area in the last fiscal year or latest available year, before tax?

(READ OUT – ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
DK/NA	6

NEW

D7

ASK ALL

Could you please estimate the share of your imports as a percentage of turnover in the last fiscal year or latest available year, before tax?

(READ OUT - ONE ANSWER ONLY)

one	1
elow 26%	2
6%-50%	3
1%-75%	4
6%-100%	5
K/NA	6

ASK D8ab AND D8c IF CODES 2 TO 6 IN D7

ASK D8ab ONLY IN FR, DE AND IT

D8ab And approximately what percentage of imports came from outside the euro area in the last fiscal year or latest available year, before tax?

(READ OUT – ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
1%-75%	4
76%-100%	5
DK/NA	6

NEW

ASK D8c ONLY IN UK

D8c And approximately what percentage of imports came from the euro area in the last fiscal year or latest available year, before tax?

(READ OUT - ONE ANSWER ONLY)

	-
None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
DK/NA	6

NEW

IN FR, DE AND IT: STOP INTERVIEW IF D6ab=NONE (CODE 1) AND D8ab=NONE (CODE 1) IN UK: STOP INTERVIEW IF D5=NONE (CODE 1) AND D7=NONE (CODE 1)

Questionnaire A

ASK QUESTIONNAIRE A ONLY IF NACE CODES B, C AND D

ASK QUESTIONNAIRE A ONLY IN FR, DE AND IT

Q1a Could you please estimate what percentage of your exports are intra-group in the last fiscal year or latest available year, before tax?

(READ OUT – ONE ANSWER ONLY)

1
2
3
4
5
6
7

NEW

ASK Q2a, Q3a AND Q4a IF CODES 2 TO 6 IN D6ab - OTHERS GO TO Q6a

CODES 15 AND 16 ARE SINGLE CODES

Q2a

Which are your three largest exporting countries outside the euro area, as measured by value?

(DO NOT READ OUT – MAX. 3 ANSWERS)

United Kingdom	1,
Poland	2,
Denmark	3,
Czech Republic	4,
Sweden	5,
Hungary	6,
Any other EU countries	7,
United States	8,
Switzerland	9,
China	10,
Russia	11,
Turkey	12,
Japan	13,
Any other non-EU countries	14,
Your company does not export outside the euro area	15,
DK/NA	16,

Q3a

What approximate share of your exports is invoiced in euro?

(READ OUT – ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
DK/NA	6

NEW

CODES 15 AND 16 ARE SINGLE CODES

Q4a

In which currencies, other than the euro, do you invoice your exports?

(DO NOT READ OUT – MAX. 3 ANSWERS)

U.S. Dollar	1,
British Pound	2,
Japanese Yen	3,
Swiss Franc	4,
Chinese Renminbi	5,
Canadian Dollar	6,
Danish Krona	7,
Swedish Krona	8,
Korean Won	9,
Indian Rupee	10,
Brazilian Real	11,
Russian Rouble	12,
Turkish Lira	13,
Other	14,
Your company does not invoice its exports in other currencies	
	15,
DK/NA	16,

ASK Q5a IF CODES 2 TO 6 IN D6ab AND CODES 2 TO 6 IN D7

Q5a Is the main currency that you use to settle your exports the same as the main currency that you use to settle your import purchases from outside the euro area?

(READ OUT – ONE ANSWER ONLY)

Yes	1
No	2
Does not apply to your company (SPONTANEOUS)	3
DK/NA	4

NEW

ASK ALL IF NACE CODES B, C AND D; ONLY IN FR, DE AND IT

Q6a

Would you say that trade invoicing of exports and imports in euro with partners outside the euro area is beneficial for your company? Please indicate from 1 (not at all beneficial) to 5 (very beneficial):

(ONE ANSWER ONLY)

1 - Not at all beneficial	1
2	2
3	3
1	4
5 - Very beneficial	5
DK/NA	6

ASK Q7a IF CODES 1 TO 14 IN Q4a - OTHERS GO TO Q8a

CODE 6 IS SINGLE CODE

Q7a We would like to understand why you use currencies other than the euro for export invoicing. Do any of these factors play a role in your choice of currencies other than the euro for export invoicing?

(READ OUT – MULTIPLE ANSWERS POSSIBLE)

The recipient country is large and this is the currency used there	1,
Competitors use other currencies and your company has to keep up with	
them	2,
Sector characteristics - e.g. this is the dominant currency used for the	
specific product worldwide	3,
Exchange risk management	4,
Other (PLEASE SPECIFY)	5,
DK/NA	6,

NEW

ASK ALL IN NACE CODES B, C AND D; ONLY IN FR, DE AND IT

Q8a In your sector who has the strongest bargaining power in setting the invoicing currency?

(READ OUT - ONE ANSWER ONLY)

The importer	1
The exporter	2
The larger company	3
Depends case by case (SPONTANEOUS)	4
DK/NA	5

ASK Q9a, Q10a, Q11a AND Q12a IF CODES 1 TO 14 IN Q4a - OTHERS GO TO Q13a

CODES 5 AND 6 ARE SINGLE CODES

Q9a

Do you invoice in a foreign currency for any of the following reasons?

(READ OUT – MULTIPLE ANSWERS POSSIBLE)

Regulatory or legal reasons (in your or your partner's home country)	
	1
Accounting reasons	2
Availability of trade credit	3
International payment infrastructure restrictions (at home or abroad) which	
force you to use a currency other than the euro	
	4
Your company does not invoice in a foreign currency	5
DK/NA	6

NEW

Q10a Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

(ONE ANSWER ONLY)

Yes (PLEASE SPECIFY)	1
No	2
DK/NA	3

Q11a Do you take measures to address exchange rate risks in your international trade activities?

(ONE ANSWER ONLY)

Yes	1
No	2
DK/NA	3

NEW

ASK Q12a IF CODE 2 "NO" IN Q11a

Q12a Why do you not address the exchange rate risks in your international trade activities?

(READ OUT – ONE ANSWER ONLY)

Because hedging instruments are not available	1
Because hedging instruments are too costly	2
Any other reasons (PLEASE SPECIFY)	3
DK/NA	4

NEW

ASK ALL IN NACE CODES B, C AND D; ONLY IN FR, DE AND IT

Q13a How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important):

(READ OUT - ONE ANSWER ONLY)

	1 -	2	3	4	5 -	DK/
	Not				Very	NA
	at all				impo	
	impo				rtant	
	rtant					

1	Transaction size	1	2	3	4	5	6
2	Contract duration and delivery time	1	2	3	4	5	6
3	The exchange rate volatility of the euro	1	2	3	4	5	6
4	Interest rates	1	2	3	4	5	6
5	Macroeconomic shocks	1	2	3	4	5	6

1 2

3

1

2

Q13ax Any other factors?

(ONE ANSWER ONLY)

Yes (PLEASE SPECIFY) No DK/NA

NEW

Q14a To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected):

(ONE ANSWER ONLY)

1 - Not at all affected	1
2	2
3	3
4	4
5 - Very much affected	5
DK/NA	6

NEW

Q15ax What would have to change in order for you to start using the euro more in international trade?

(USE CODE FOR CODING DK/NA - DO NOT WRITE IT DOWN AS AN OPEN-ENDED ANSWER)

Write down the answer DK/NA

NEW

ASK Q15a IF CODE 1 IN Q15ax

Q15a W

What would have to change in order for you to start using the euro more in international trade?

(WRITE DOWN THE ANSWER)

Questionnaire B

ASK QUESTIONNAIRE B ONLY IF NACE CODES K AND M

ASK QUESTIONNAIRE B ONLY IN FR, DE AND IT

Q1b Thinking about services you provide to entities based abroad, what percentage are intragroup?

(READ OUT – ONE ANSWER ONLY)

None	1
3elow 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
Your company does not belong to a group	6
DK/NA	7

NEW

ASK Q2b IF CODES 2 TO 6 IN D6ab - OTHERS GO TO Q5b

CODES 15 AND 16 ARE SINGLE CODES

Q2b

Which are your three largest exporting countries outside the euro area, as measured by value?

(DO NOT READ OUT – MAX. 3 ANSWERS)

United Kingdom	1,
Poland	2,
Denmark	3,
Czech Republic	4,
Sweden	5,
Hungary	6,
Any other EU countries	7,
United States	8,
Switzerland	9,
China	10,
Russia	11,
Turkey	12,
Japan	13,
Any other non-EU countries	14,
Your company does not export outside the euro area	15,
DK/NA	16,

ASK Q3b AND Q4b IF CODES 2 TO 6 IN D5 - OTHERS GO TO Q5b

Q3b What approximate share of the services you provide to entities based abroad is invoiced in euro?

(READ OUT - ONE ANSWER ONLY)

None] 1
Below 26%] 2
26%-50%] 3
51%-75%] 4
76%-100%	5
DK/NA] 6
	-

NEW

CODES 15 AND 16 ARE SINGLE CODES

Q4b In which currencies other than the euro do you invoice the services you provide to entities based abroad?

(DO NOT READ OUT - MAX. 3 ANSWERS)

U.S. Dollar	1,
British Pound	2,
Japanese Yen	3,
Swiss Franc	4,
Chinese Renminbi	5,
Canadian Dollar	6,
Danish Krona	7,
Swedish Krona	8,
Korean Won	9,
Indian Rupee	10,
Brazilian Real	11,
Russian Rouble	12,
Turkish Lira	13,
Other	14,
Your company does not invoice its services in other currencies	15,
DK/NA	16,

ASK ALL IN NACE CODES K AND M; ONLY IN FR, DE AND IT

Q5b Would you say that invoicing your provided or received services in euro with partners outside the euro area is beneficial for your company? Please indicate from 1 (not at all beneficial) to 5 (very beneficial):

(ONE ANSWER ONLY)

1 - Not at all beneficial	1
2	2
3	3
4	4
5 - Very beneficial	5
DK/NA	6

NEW

ASK Q6b IF CODES 1 TO 14 IN Q4b - OTHERS GO TO Q7b

CODE 6 IS SINGLE CODE

Q6b We would like to understand why you use currencies other than the euro for invoicing the services you provide to entities based abroad. Do any of these factors play a role in your choice?

(READ OUT – MULTIPLE ANSWERS POSSIBLE)

The recipient country is large and this is the currency used there			
Competitors use other currencies and your company has to keep up with			
them	2,		
Sector characteristics - e.g. this is the dominant currency used for the			
specific product worldwide	3,		
Exchange risk management	4,		
Other (PLEASE SPECIFY)	5,		
DK/NA	6,		

ASK ALL IN NACE CODES K AND M; ONLY IN FR, DE AND IT

Q7b

In your sector who has the strongest bargaining power in setting the invoicing currency?

(READ OUT - ONE ANSWER ONLY)

The invoicing entity	1
The customer being invoiced	2
The larger company	3
Depends case by case (SPONTANEOUS)	4
DK/NA	5

NEW

ASK Q8b, Q9b, Q10b and Q11b IF CODES 1 TO 14 IN Q4b - OTHERS GO TO Q12b

CODES 5 AND 6 ARE SINGLE CODES

Q8b Do you invoice in a foreign currency for any of the following reasons?

(READ OUT – MULTIPLE ANSWERS POSSIBLE)

Regulatory or legal reasons (in your or your partner's home country)	
	1
Accounting reasons	2
Availability of trade credit	3
International payment infrastructure restrictions (at home or abroad) which	
force you to use a currency other than the euro	
	4
Your company does not invoice in a foreign currency	5
DK/NA	6

NEW

Q9b Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

(ONE ANSWER ONLY)

Yes (PLEASE SPECIFY)	1
No	2
DK/NA	3

Q10b Do you take measures to address exchange rate risks in your international trade activities?

(ONE ANSWER ONLY)

Yes	1
No	2
DK/NA	3

NEW

ASK Q11b IF CODE 2 "NO" IN Q10b

Q11b Why do you not address exchange rate risks in your international trade activities?

(READ OUT – ONE ANSWER ONLY)

Because hedging instruments are not available	1
Because hedging instruments are too costly	2
Any other reasons (PLEASE SPECIFY)	3
DK/NA	4

NEW

ASK ALL IN NACE CODES K AND M; ONLY IN FR, DE AND IT

Q12b How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important):

(READ OUT - ONE ANSWER ONLY)

1	L -	2	3	4	5 -	DK/
No	lot				Very	NA
ata	all				impo	
imp	ipo				rtant	
rta	ant					

1	Transaction size	1	2	3	4	5	6
2	Contract duration and delivery time	1	2	3	4	5	6
3	The exchange rate volatility of the euro	1	2	3	4	5	6
4	Interest rates	1	2	3	4	5	6
5	Macroeconomic shocks	1	2	3	4	5	6

1 2

3

1

2

Q12bx Any other factors?

(ONE ANSWER ONLY)

Yes (PLEASE SPECIFY) No DK/NA

NEW

Q13b To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected):

(ONE ANSWER ONLY)

1 - Not at all affected	1
2	2
3	3
4	4
5 - Very much affected	5
DK/NA	6

NEW

Q14bx What would have to change in order for you to start using the euro more in international trade?

(USE CODE FOR CODING DK/NA - DO NOT WRITE IT DOWN AS AN OPEN-ENDED ANSWER)

Write down the answer DK/NA

NEW

ASK Q14b IF CODE 1 IN Q14bx

Q14b What would have to change in order for you to start using the euro more in international trade?

(WRITE DOWN THE ANSWER)

Questionnaire C

ASK QUESTIONNAIRE C ONLY IF NACE CODES K AND M

ASK QUESTIONNAIRE C ONLY IN UK

Q1c Thinking about services you provide to entities based abroad, what percentage are intragroup?

(READ OUT – ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
Your company does not belong to a group	6
DK/NA	7

NEW

CODES 6 AND 7 ARE SINGLE CODES

Q2c

Which are your three largest exporting countries inside the euro area, as measured by value?

(READ OUT – MAX. 3 ANSWERS)

Ireland	
Germany	
The Netherlands	
France	
Any other euro area countries	
Your company does not export inside the euro area	
DK/NA	

Q3c What approximate share of the services you provide to entities based abroad is invoiced in euro?

(READ OUT - ONE ANSWER ONLY)

None	1
Below 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
DK/NA	6

NEW

Q4c

What is the approximate share of the services you provide to entities based abroad that is invoiced in currencies other than the euro or the British pound, for example in U.S. dollars?

(READ OUT – ONE ANSWER ONLY)

None	1
3elow 26%	2
26%-50%	3
51%-75%	4
76%-100%	5
DK/NA	6

NEW

ASK Q5c AND Q6c IF CODES 2 TO 6 IN Q3c - OTHERS GO TO Q7c

Q5c Would you say that invoicing your provided or received services in euro with partners based abroad is beneficial for your firm? Please indicate from 1 (not at all beneficial) to 5 (very beneficial):

(ONE ANSWER ONLY)

1 - Not at all beneficial	
2	
3	3
4	4
5 - Very beneficial	
DK/NA	(

CODE 6 IS SINGLE CODE

Q6c We would like to understand why you use the euro for invoicing the services you provide to entities based abroad. Do any of these factors play a role in your choice?

(READ OUT – MULTIPLE ANSWERS POSSIBLE)

The recipient country is large and this is the currency used there	1,
Competitors use other currencies and your company has to keep up with	
them	2,
Sector characteristics - e.g. this is the dominant currency used for the	
specific product worldwide	3,
Exchange risk management	4,
Other (PLEASE SPECIFY)	5,
DK/NA	6,

NEW

Q7c

In your sector who has the strongest bargaining power in setting the invoicing currency?

(READ OUT - ONE ANSWER ONLY)

The invoicing entity	1
The customer being invoiced	2
The larger company	3
Depends case by case (SPONTANEOUS)	4
DK/NA	

CODES 5 AND 6 ARE SINGLE CODES

Q8c

Do any of the following reasons play a role in your decision not to invoice in euro?

(READ OUT – MULTIPLE ANSWERS POSSIBLE)

Regulatory or legal reasons (in your or your partner's home country)	
	1,
Accounting reasons	2,
Availability of trade credit	3,
International payment infrastructure restrictions (at home or abroad) which	
force you to use a currency other than the euro	
	4,
Your company does not invoice in a foreign currency	5,
DK/NA	6,

NEW

Q9c Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

(ONE ANSWER ONLY)

	_
Yes (PLEASE SPECIFY)	1
No	2
DK/NA	3

NEW

Q10c Do you take measures to address exchange rate risks in your international trade activities with entities based abroad?

(ONE ANSWER ONLY)

Yes	1
No	2
DK/NA	3

ASK Q11c IF CODE 2 "NO" AT Q10c

Q11c Why do you not take measures to address exchange rate risks in your international trade activities?

(READ OUT - ONE ANSWER ONLY)

Because hedging instruments are not available				
Because hedging instruments are too costly	2			
Any other reasons (PLEASE SPECIFY)	3			
DK/NA	4			

NEW

ASK ALL IN NACE CODES K AND M; ONLY IN UK

Q12c How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important):

(READ OUT - ONE ANSWER ONLY)

1-	2	3	4	5 -	DK/
Not				Very	NA
at al				impo	
impo				rtant	
rtant					

1	Transaction size	1	2	3	4	5	6
2	Contract duration and delivery time	1	2	3	4	5	6
3	The exchange rate volatility of the euro	1	2	3	4	5	6
4	Interest rates	1	2	3	4	5	6
5	Macroeconomic shocks	1	2	3	4	5	6

1

2

3

Q12cx Any other factors?

(ONE ANSWER ONLY)

Yes (PLEASE SPECIFY) No DK/NA

NEW

Q13c To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected):

(ONE ANSWER ONLY)

1 - Not at all affected	1
2	2
3	3
4	4
5 - Very much affected	5
DK/NA	6

NEW

Q14cx	What would have to change in order for you to start using the euro more in international
	trade?

(USE CODE FOR CODING DK/NA - DO NOT WRITE IT DOWN AS AN OPEN-ENDED ANSWER)

Write down the answer	1
DK/NA	2

NEW

ASK Q14c IF CODE 1 IN Q14cx

Q14c What would have to change in order for you to start using the euro more in international trade?

(WRITE DOWN THE ANSWER)

TABLES

D0b NACE CODE

		Aircraft and shipbuilding (C30)	Energy (B, C19 & D)	Electrical and mechanical engineering (C27, C28 & C33)	Financial services (K66.1.1., K66.1.2., K66.1.9 & M69.2)
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	0	2	70	28
	DE	0	6	89	5
Ó	FR	0	1	96	3
Ó	IT	1	0	97	2
	UK	0	0	0	100

	Yes	No	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	100	0	0
DE	100	0	0
FR	100	0	0
IT	100	0	0
UK	100	0	0

D1 Could you confirm that your company operates in the [enter sector description from sample] sector?

France		Germany	Italy	United Kingdom	Other	DK/NA
%	Flash EB 424					
TOTAL	25	25	25	25	0	0
DE	0	99	0	1	0	0
FR	98	1	1	0	0	0
IT	0	0	100	0	0	0
UK	0	0	0	100	0	0

D2 In which country is your company registered for trade and financial reporting?

		1 to 9 employees	10 to 49 employees	50 to 249 employees	250 to 499 employees	500 or more employees	DK/NA
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	34	41	18	4	2	1
	DE	25	35	27	10	3	0
	FR	33	41	22	3	1	0
Ó	IT	20	67	9	1	3	0
	UK	61	20	13	1	2	3

D3 How many full-time employees did your company have in the last fiscal year? Please state the number of employees in your legal entity, not at the group level.

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	100,000 euros or less		More than 100,000 to 500,000 euros	More than 500,000 to 2 million euros	More than 2 million euros	DK/NA
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	3	9	18	39	31
	DE	1	4	13	42	40
Ō	FR	0	6	28	53	13
Ō	IT	3	3	24	35	35
	UK	9	21	9	25	36

D4 What was the turnover of your company in the last fiscal year? Please state the turnover in your legal entity, not at the group level.

		None	Below 26%	26%-50%	51%-75%	76%-100%	DK/NA	Total 'Share of exports 1 - 100%'
	%	Flash EB 424						
	TOTAL	5	46	19	17	12	1	94
	DE	4	37	24	24	7	4	92
Ó	FR	5	52	19	14	10	0	95
Ó	IT	3	24	22	24	26	1	96
	UK	7	73	10	5	4	1	92

D5 Could you please estimate the share of your exports as a percentage of turnover in the last fiscal year or latest available year, before tax?

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		None	Below 26%	26%-50%	51%-75%	76%-100%	DK/NA	Total 'Share of exports 1 - 100%'
	%	Flash EB 424						
	TOTAL	7	52	22	8	9	2	91
	DE	7	54	20	9	7	3	90
	FR	11	56	13	8	9	3	86
Ó	IT	2	48	32	7	11	0	98

D6ab And approximately what percentage of your exports went outside the euro area in the last fiscal year or latest available year, before tax?

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		None	Below 26%	26%-50%	51%-75%	76%-100%	DK/NA	Total 'Share of exports 1 - 100%'
	%	Flash EB 424						
	UK	22	46	9	6	16	1	77

D6c And approximately what percentage of your exports went to the euro area in the last fiscal year or latest available year, before tax?

	None	None Below 26% 26%		26%-50% 51%-75%		DK/NA	Total 'Share of imports 1 - 100%'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	33	49	10	2	2	4	63
DE	19	55	12	3	4	7	74
FR	15	62	16	2	2	3	82
IT	36	48	9	3	1	3	61
UK	60	32	5	1	1	1	39

D7 Could you please estimate the share of your imports as a percentage of turnover in the last fiscal year or latest available year, before tax?

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	None	Below 26%	26%-50%	51%-75%	76%-100%	DK/NA	Total 'Share of imports 1 - 100%'
%	Flash EB 424						
TOTAL	25	54	10	2	4	5	70
DE	20	52	10	3	5	10	70
FR	28	59	6	1	2	4	68
IT	25	51	14	2	6	2	73

D8ab And approximately what percentage of imports came from outside the euro area in the last fiscal year or latest available year, before tax?

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	None	Below 26%	26%-50%	51%-75%	76%-100%	DK/NA	Total 'Share of imports 1 - 100%'
%	Flash EB 424						
UK	25	47	5	15	8	0	75

D8c And approximately what percentage of imports came from the euro area in the last fiscal year or latest available year, before tax?

ż

	None	Below 26%	26%-50%	51%-75%	76%-100%	Your company does not belong to a group	DK/NA	Total 'Share of exports 1 - 100%'
%	Flash EB 424	Flash EB 424	Flash EB 424					
TOTAL	23	16	4	3	1	48	5	24
DE	41	16	6	3	1	30	3	26
FR	21	22	6	5	2	35	9	35
IT	6	8	1	2	1	79	3	12

Q1 Could you please estimate what percentage of your exports are intra-group in the last fiscal year or latest available year, before tax?

	United Kingdom	Poland	Denmark	Czech Republic	Sweden	Hungary	Any other EU countries
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	3	3	0	1	1	0	8
DE	6	3	1	1	2	0	10
FR	4	2	0	1	1	0	2
IT	0	3	0	0	0	0	12

Q2 Which are your three largest exporting countries outside the euro area, as measured by value? (DO NOT READ OUT – MAX. 3 ANSWERS)

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		United States	Switzerland	China	Russia	Turkey	Japan	Any other non-EU countries	Your company does not export outside the euro area	DK/NA
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	33	12	23	13	5	3	59	2	2
🔴	DE	46	20	34	16	4	6	46	3	1
Ō	FR	28	7	19	6	2	1	69	1	4
	IT	24	9	18	16	8	2	63	2	1

Q2 Which are your three largest exporting countries outside the euro area, as measured by value? (DO NOT READ OUT – MAX. 3 ANSWERS)

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	None	Below 26%	26%-50%	51%-75%	76%-100%	DK/NA	Total 'Share of exports 1 100%'	
%	Flash EB 424							
TOTAL	2	8	4	6	78	2	96	
DE	3	3	7	7	79	1	96	
FR	4	14	2	6	73	1	95	
гт	0	8	4	5	81	2	98	

Q3 What approximate share of your exports is invoiced in euro?

		U.S Dollar	British Pound	Japanese Yen	Swiss Franc	Chinese Renminbi	Canadian Dollar	Danish Krona
	%	Flash EB 424	Flash EB 424	Flash EB 424				
	TOTAL	29	3	1	3	1	0	0
	DE	29	1	1	3	3	O	0
Ó	FR	33	5	0	2	0	1	0
	IT	24	2	1	3	0	0	0

Q4 In which currencies, other than the euro, do you invoice your exports? (DO NOT READ OUT - MAX. 3 ANSWERS)

		Swedish Krona	Korean Won	Indian Rupee	Brazilian Real	Russian Rouble	Turkish Lira	Other	Your company does not invoice its exports in other currencies	DK/NA
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	0	0	0	0	1	0	3	65	2
🎽	DE	0	0	0	0	2	0	2	63	0
ĬŎ	FR	0	0	1	0	0	0	7	61	2
Ō	IT	0	0	0	0	0	1	1	71	3

Q4 In which currencies, other than the euro, do you invoice your exports? (DO NOT READ OUT - MAX. 3 ANSWERS)

		Yes	No	Does not apply to your company (SPONTANEOUS)	DK/NA
	%	Flash EB	Flash EB	Flash EB	Flash EB
		421	421	421	421
	TOTAL	81	12	3	4
	DE	82	10	2	6
	FR	80	14	3	3
	IT	81	10	7	2

Q5a Is the main currency that you use to settle your exports the same as the main currency that you use to settle your import purchases from outside the euro area?

		1 - Not at all beneficial	2	3	4	5 - Very beneficial	DK/NA	Total 'Not beneficial 1+2'	Total 'Beneficial 4+5'
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
		121	.2.1	121			.2.1	121	
2.00	TOTAL	8	8	26	22	28	8	16	50
	DE	8	3	16	20	43	10	11	63
	FR	9	13	27	23	22	6	22	45
	IT	7	7	34	22	20	10	14	42

Q6 Would you say that trade invoicing of exports and imports in euro with partners outside the euro area is beneficial for your company? Please indicate from 1 (not at all beneficial) to 5 (very beneficial):

		The recipient country is large and this is the currency used there	Competitors use other currencies and your company has to keep up with them	Sector characteristics - e.g. this is the dominant currency used for the specific product worldwide	Exchange risk management	Other (PLEASE SPECIFY)	DK/NA
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	49	17	24	29	24	7
🔴	DE	55	12	15	18	21	9
Ō	FR	55	23	29	39	19	3
	IT	36	16	28	32	32	8

E.

Q7 We would like to understand why you use currencies other than the euro for export invoicing. Do any of these factors play a role in your choice of currencies other than the euro for export invoicing? (MULTIPLE ANSWERS POSSIBLE)

n,

The in		The exporter	The larger company	Depends case by case (SPONTANEOUS)	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	17	36	20	18	9
DE	16	33	11	34	6
FR	26	33	27	8	6
IT	9	44	22	11	14

 $\ensuremath{\mathsf{Q8}}$ In your sector who has the strongest bargaining power in setting the invoicing currency?

	Regulatory or legal reasons (in your or your partner's home country)	Accounting reasons	Availability of trade credit	International payment infrastructure restrictions (at home or abroad) which force you to use a currency other than the euro	Your company does not invoice in a foreign currency	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	26	28	13	21	9	30
DE	21	33	0	6	9	39
FR	32	23	23	29	16	16
IT	24	28	20	32	0	36

Q9 Do you invoice in a foreign currency for any of the following reasons? (MULTIPLE ANSWERS POSSIBLE)

	Yes (PLEASE SPECIFY)	No	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	4	93	3
DE	6	91	3
FR	3	97	0
IT	0	92	8

Q10 Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

	Yes	No	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	46	47	7
DE	49	39	12
FR	55	45	0
IT	32	60	8

Q11 Do you take measures to address exchange rate risks in your international trade activities?

		Because hedging instruments are not available	Because hedging instruments are too costly	Any other reasons (PLEASE SPECIFY)	DK/NA
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	2	40	48	10
	DE	0	54	31	15
	FR	7	29	64	0
Ō	IT	0	40	47	13

Q12 Why do you not address the exchange rate risks in your international trade activities?

	1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	20	9	17	21	24	9	29	45
DE	23	9	15	19	24	10	32	43
FR	21	12	20	15	23	9	33	38
IT	15	8	15	29	25	8	23	54

Q13.1 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Transaction size

	1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
%	Flash EB	Flash EB	Flash EB	Flash EB	Flash EB	Flash EB	Flash EB	Flash EB
	424	424	424	424	424	424	424	424
TOTAL	19	9	18	18	31	5	28	49
DE	27	7	12	15	35	4	34	50
FR	21	14	19	13	25	8	35	38
IT	9	7	24	25	32	3	16	57

Q13.2 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Contract duration and delivery time

		1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	17	9	21	18	27	8	26	45
🎽	DE	21	9	15	16	28	11	30	44
Ō	FR	18	7	21	16	31	7	25	47
Ŏ	IT	11	11	27	22	23	6	22	45

Q13.3 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): The exchange rate volatility of the euro

		1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	28	14	17	13	19	9	42	32
	DE	44	8	17	8	10	13	52	18
Ō	FR	28	14	20	11	19	8	42	30
Ō	IT	12	22	13	19	28	6	34	47

Q13.4 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Interest rates

	1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
TOTAL	22	12	24	12	16	14	34	28
DE	31	14	18	8	11	18	45	19
FR	24	9	31	15	12	9	33	27
IT	12	13	23	12	25	15	25	37

Q13.5 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Macroeconomic shocks

Q13x Any other factors?

		Yes (PLEASE SPECIFY)	No	DK/NA
	%	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	7	92	1
	DE	11	85	4
Ó	FR	6	94	0
Ó	IT	3	96	1

		1 - Not at all affected	2	3	4	5 - Very much affected	DK/NA	Total 'Not affected 1+2'	Total 'Affected 4+5'
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
	TOTAL	65	8	13	6	5	3	73	11
	DE	75	6	9	4	1	5	81	5
Ó	FR	71	10	8	6	5	0	81	11
	IT	49	8	22	9	10	2	57	19

Q14 To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected):

r

		Write down the answer	DK/NA
	%	Flash EB 424	Flash EB 424
	TOTAL	50	50
	DE	13	87
	FR	68	32
	IT	68	32

Q15x What would have to change in order for you to start using the euro more in international trade?

	None	Below 26%	26%-50%	51%-75%	76%-100%	Your company does not belong to a group	DK/NA	Total 'Share of services 1 - 100%'
%	Flash EB 424	Flash EB 424	Flash EB 424					
🕀 ик	39	16	6	0	2	34	3	24

Q1c Thinking about services you provide to entities based abroad, what percentage are intra-group?

	Ireland	Germany	The Netherlands	France	Any other euro area countries	Your company does not export inside the euro area	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
UK	13	22	16	21	36	25	7

Q2c Which are your three largest exporting countries inside the euro area, as measured by value? (MAX. 3 ANSWERS)

 None Flash EB	Below 26% Flash EB	26%-50% Flash EB	51%-75% Flash EB	76%-100% Flash EB	DK/NA Flash EB	of services 1 - 100%' Flash EB	
None	Below 26%	26%-50%	5196-7596	76%-100%		Total 'Share	

Q3c What approximate share of the services you provide to entities based abroad is invoiced in euro?

	None	Below 26%	26%-50%	51%-75%	76%-100%	DK/NA	Total 'Share of services 1 · 100%'
%	Flash EB 424						
UK	69	17	4	4	3	3	28

Q4c What is the approximate share of the services you provide to entities based abroad that is invoiced in currencies other than the euro or the British pound, for example in U.S. dollars?

	1 - Not at all beneficial	2	3	4	5 - Very beneficial	DK/NA	Total 'Not beneficial 1+2'	Total 'Beneficial 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
🕀 ик	21	10	41	4	24	0	31	28

Q5c Would you say that invoicing your provided or received services in euro with partners based abroad is beneficial for your firm? Please indicate from 1 (not at all beneficial) to 5 (very beneficial): Q6c We would like to understand why you use the euro for invoicing the services you provide to entities based abroad. Do any of these factors play a role in your choice? (MULTIPLE ANSWERS POSSIBLE)

	The recipient country is large and this is the currency used there	Competitors use other currencies and your company has to keep up with them	Sector characteristics - e.g. this is the dominant currency used for the specific product worldwide	Exchange risk management	Other (PLEASE SPECIFY)	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
🕀 ик	59	34	48	38	21	14

		The invoicing entity	The customer being invoiced	The larger company	Depends case by case (SPONTANEOUS)	DK/NA
	%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
-	UK	44	22	8	14	12

Q7c In your sector who has the strongest bargaining power in setting the invoicing currency?

	Regulatory or legal reasons (in your or your partner's home country)	Accounting reasons	Availability of trade credit	International payment infrastructure restrictions (at home or abroad) which force you to use a currency other than the euro	Your company does not invoice in a foreign currency	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
🕀 ИК	11	31	6	14	33	27

Q8c Do any of the following reasons play a role in your decision not to invoice in euro? (MULTIPLE ANSWERS POSSIBLE)

	Yes (PLEASE SPECIFY)	No	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424
UK	4	94	2

Q9c Are there any other trade practices which do not allow you to set the euro as an invoicing currency?

	Yes	No	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424
UK	30	65	5

Q10c Do you take measures to address exchange rate risks in your international trade activities with entities based abroad?
	Because hedging instruments are not available	Because hedging instruments are too costly	Any other reasons (PLEASE SPECIFY)	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
UK 🕀	2	17	63	18

Q11c Why do you not take measures to address exchange rate risks in your international trade activities?

	1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
UK	37	7	12	8	23	13	44	31

Q12c.1 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Transaction size

	1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
UK	40	11	12	9	14	14	51	23

Q12c.2 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Contract duration and delivery time

	1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
UK	30	5	14	12	26	13	35	38

Q12c.3 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): The exchange rate volatility of the euro

	1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
UK	45	9	13	9	11	13	54	20

Q12c.4 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Interest rates

	1 - Not at all important	2	3	4	5 - Very important	DK/NA	Total 'Not important 1+2'	Total 'Important 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
UK	43	7	12	7	8	23	50	15

Q12c.5 How important are the following factors when choosing the euro as your invoicing currency? Please indicate from 1 (not at all important) to 5 (very important): Macroeconomic shocks

Q12cx Any other factors?

	Yes (PLEASE SPECIFY)	No	DK/NA
%	Flash EB 424	Flash EB 424	Flash EB 424
UK	9	91	0

	1 - Not at all affected	2	3	4	5 - Very much affected	DK/NA	Total 'Not affected 1+2'	Total 'Affected 4+5'
%	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424	Flash EB 424
UK	83	3	7	4	2	1	86	6

Q13c To what extent has the recent European sovereign debt crisis affected the use of the euro in your invoicing practices? Please indicate from 1 (not at all affected) to 5 (very much affected):

FLASH EUROBAROMETER 424 "Possible obstacles to using the euro in international trade"

	Write down the answer	DK/NA
%	Flash EB 424	Flash EB 424
🕀 ик	63	37

Q14cx What would have to change in order for you to start using the euro more in international trade?

Appendix E. Description of variables

Variable	Description	Classes
exports	firm's share of exports invoiced in euro; in classes which correspond to the	1 None
	following values:	2 Below 26%
		3 26%-50%
		4 51%-75%
		5 76%-100%
employment	The number of full-time employees currently employed in a firm: in classes	1 1 to 9 employees
	which correspond to the following values:	2 10 to 49 employees
		3 50 to 249 employees
		4 250 to 499 employees
turnover	firm's turnover; in euros	N/A
turnover classes	firm's turnover; in classes which correspond to the following values:	1 100,000 euros or less
		2 More than 100,000 to 500,000 euros
		3 More than 500,000 to 2 million euros
		4 More than 2 million euros
exports (% turnover)	firm's exports in the last fiscal year; as percentage of its turnover, in classes which correspond to the following values:	1 None
		2 Below 26%
		3 26%-50%
		4 51%-75%
		5 76%-100%
imports (% turnover)	firm's imports in the last fiscal year; as percentage of its turnover, in classes	1 None
	which correspond to the following values:	2 Below 26%
		3 26%-50%
		4 51%-75%
		5 76%-100%
Exports extra- euro	firm's percentage of exports outside the euro area, in classes which correspond	1 None
	to the following values:	2 Below 26%
		3 26%-50%
		4 51%-75%
		5 76%-100%

Imports extra- euro	firm's percentage of imports from outside the euro area, in classes which	1 None
	correspond to the following values:	2 Below 26%
		3 26%-50%
		4 51%-75%
		5 76%-100%
Exports intra group	firm's percentage of exports that went to intra group partners, in classes which	1 None
	correspond to the following values:	2 Below 26%
		3 26%-50%
		4 51%-75%
		5 76%-100%
Switzerland	Dummy taking the value 1 if Switzerland is among the firm's three largest	1
	exporting countries	0
Turkey	Dummy taking the value 1 if Turkey is among the firm's three largest exporting	1
	countries	0
USA	Dummy taking the value 1 if USA is among the firm's three largest exporting	1
	countries	0
Settlement	Dummy taking the value 1 if the main currency that the firm uses to settle their exports is the same as the main currency that they use to settle their	1
		0
	imports purchases from outside the euro area	
Euro beneficial	exports and imports in euro with	1 Very beneficial
	beneficial for their company on a scale 1	0 Otherwise
	beneficial" and 1 "not at all beneficial"). The variable is a dummy consisting of	
Large recipient	firms that declared 4 and 5. Dummy taking the value 1 if the firm	1
	uses a currency other than the euro because the recipient country is large.	0
Competitors	Dummy taking the value 1 if the firm	1
	uses a currency other than the euro because the competitors use other	0
• •	currencies and the firm wants to keep up with them	
Sector	Dummy taking the value 1 if the firm uses a currency other than the euro	
	specific sector	0

Exchange risk mgt	Dummy taking the value 1 if the firm uses a currency other than the euro	1
	because it is the firm's exchange risk management	0
Exporter	Dummy taking the value 1 if the firm declared that in their sector the	1
	exporter has the strongest bargaining power.	0
Importer	Dummy taking the value 1 if the firm declared that in their sector the	1
	importer has the strongest bargaining power.	0
Largest company	Dummy taking the value 1 if the firm declared that in their sector the largest	1
	company has the strongest bargaining power.	0
Regulatory	Dummy taking the value 1 if the firm declared they invoice in a foreign	1
	currency due to regulatory or legal reasons (home or abroad)	0
Accounting	Dummy taking the value 1 if the firm declared they invoice in a foreign	1
	currency due to accounting reasons	0
Trade credit	Dummy taking the value 1 if the firm declared they invoice in a foreign	1
	currency due to availability of trade credit	0
Payment infrastructure	Dummy taking the value 1 if the firm declared they invoice in a foreign	1
	currency due to payment infrastructure restrictions	0
Transaction size	Firm was asked how important is the "transaction size" factor when choosing	1 Not at all important
	the euro as their invoicing currency, on a scale 1 to 5 (with 5 representing "very	2
	important").	3
		4
		5 Very important
Duration	Firm was asked how important is the "contract duration" factor when	1 Not at all important
	choosing the euro as their invoicing currency, on a scale 1 to 5 (with 5	2
	representing "very important").	3
		4
		5 Very important
Euro volatility	Firm was asked how important is the "exchange rate volatility of the euro"	1 Not at all important
	factor when choosing the euro as their invoicing currency, on a scale 1 to 5 (with	2
	5 representing "very important").	3

		4
		5 Very important
Macro shocks	Firm was asked how important is the "macroeconomic shocks" factor when	1 Not at all important
	choosing the euro as their invoicing currency, on a scale 1 to 5 (with 5	2
	representing "very important").	3
		4
		5 Very important
Exchange risk measures	Dummy taking the value 1 if the firm takes measures to address exchange	1
	risks in their international trade activities	0
Hedging instruments	Dummy taking the value 1 if the firm does not takes measures to address	1
	exchange risks in their international trade activities because hedging instruments are not available	0
Crisis	Firm was asked to what extend has the recent European debt crisis affected the	1 Not at all affected
	use of the euro in their invoicing practices, on a scale 1 to 5 (with 5	2
	representing "very much affected").	3
		4
		5 Very much affected

Appendix F1: Mechanical engineering industry

	(1)	(2)	(3)	(4)	(5)
Employment	-0.002**	-0.002**	-0.002**	-0.002**	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Switcherland	4.744***	-	-	-	-
	(0.184)				
Turkey	-	4.465***	-	-	
		(0.187)			
USA	-	-	-0.542**	-	-
			(0.222)		
Settlement	-	-	-	-0.239	-
				(0.342)	
Euro beneficial	-	-	-	-	0.438*
					(0.230)
Observations	174	174	174	116	161

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)
Employment	-0.002**	-0.002**	-0.002**	-0.002**	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Transaction size	0.033	-	-	-	-
	(0.075)				
Duration	-	-0.014	-	-	-
		(0.074)			
Euro volatility	-	-	-0.099	-	-
			(0.073)		
Interest rates	-	-	-	-0.055	-
				(0.079)	
Macro shocks	-	-	-	-	-0.102
					(0.083)
Observations	161	165	163	159	148

	(1)	(2)	(3)	(4)
Employment	-0.001	-0.003	-0.001	-0.002**
	(0.001)	(0.002)	(0.002)	(0.001)
Exchange risk measures	0.381	-	-	-
	(0.322)			
Hedging instruments	-	0.719	-	-
		(0.573)		
Hedging costly	-	-	0.223	-
			(0.510)	
Crisis	-	-	-	-0.253
				(0.331)
Observations	53	22	22	167

	(1)	(2)	(3)	(4)	(5)
Employment	-0.001*	-0.001	-0.001*	-0.001**	-0.001*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Transaction size	0.034	-	-	-	
	(0.121)				
Duration	-	0.001	-	-	-
		(0.113)			
Euro volatility	-	-	0.037	-	-
			(0.124)		
Interest rates	-	-	-	0.025	-
				(0.131)	
Macro shocks	-	-	-	-	0.137
					(0.136)
Observations	55	60	59	57	54

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively.

Table 2. Hedging & Crisis	(electrical engineering industry)
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	(1)	(2)	(3)	(4)
Employment	0.002	-	-	-0.001*
	(0.002)			(0.001)
Exchange risk measures	-0.215	-	-	-
	(0.610)			
Hedging instruments	-	-	-	-
Hedging costly	-	-	-	-
Crisis	-	-	-	-0.166
				(0.151)
Observations	21	-	-	62

Appendix F3: Finance industry (UK firms)

	(1)	(2)	(3)	(4)	(5)
Employment	0.004**	0.002	0.004**	0.004**	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Ireland	0.384	-	-	-	-
	(0.412)				
Germany	-	0.945***	-	-	-
		(0.317)			
Netherlands	-	-	0.612**	-	-
			(0.298)		
France	-	-	-	0.004	-
				(0.317)	
Euro beneficial	-	-	-	-	0.869*
					(0.512)
Observations	98	98	98	98	27

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Employment	0.001	0.001	0.001	0.002	0.003	0.003	0.004**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Large recipient	0.922	-	-	-	-	-	-
	(0.796)						
Competitors	-	0.259	-	-	-	-	-
		(0.463)					
Sector	-	-	-0.477	-	-	-	-
			(0.456)				
Exchange risk mgt	-	-	-	0.547	-	-	-
				(0.477)			
Exporter	-	-	-	-	-1.513***	-	-
					(0.402)		
Importer	-	-	-	-	-	0.757***	-
						(0.293)	
Largest company	-	-	-	-	-	-	1.357**
							(0.390)
Observations	27	27	27	27	86	86	86

	(1)	(2)	(3)	(4)	(5)
Employment	0.005**	0.005**	0.004**	0.004**	0.004**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Transaction size	0.149**	-	-	-	-
	(0.074)				
Duration	-	0.234***	-	-	-
		(0.082)			
Euro volatility	-	-	0.106	-	-
			(0.074)		
Interest rates	-	-	-	0.173**	-
				(0.084)	
Macro shocks	-	-	-	-	0.237***
					(0.092)
Observations	85	84	85	85	76

Note: The table presents the results of ordered probit regressions with robust standard errors. The dependent variable is the share of exports invoiced in euro; country dummies are included in all regressions. T-statistics are reported in the parenthesis. *, **, *** indicate significance at 10, 5 and 1 percent levels, respectively.

	(1)	(2)	(3)	(4)
Employment	0.002	0.007	0.009	0.004**
	(0.002)	(0.010)	(0.011)	(0.002)
Exchange risk measures	1.337***	-	-	-
-	(0.314)			
Hedging instruments	-	1.666***	-	-
		(0.322)		
Hedging costly	-	-	0.566	-
			(0.468)	
Crisis	-	-	-	0.220
				(0.490)
Observations	93	53	53	97

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