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Editorial

Este novo Caderno de Comércio Internacional da revista “Percurso & Ideias” do ISCET aborda diferentes temáticas multidisciplinares relevantes para a investigação na área. Inicia-se com um assunto particularmente importante para a economia europeia e portuguesa, sobretudo no contexto da crise que afectou a Zona Euro. A questão do superavit comercial da Alemanha e da sua relação / responsabilidade pelo défice da balança comercial dos países de Sul da União Europeia, entre os quais Portugal. Em *German Balance On Current Account Surpluses: Cause or Result of Macroeconomic Instability in the Eurozone*, Gerhard Feldmeier, professor de Economia e Gestão Internacional na Universidade de Hochschule, Bremerhaven, propõe uma outra forma olhar o problema. Não é a que usualmente estamos habituados em Portugal. Mostra como existe uma forte correlação entre os excedentes das exportações da balança comercial alemã e os efeitos positivos em vários países europeus, sob a forma de importação de produtos intermédios. Argumenta, ainda, que uma redução das exportações alemãs, feita por razões políticas, dificilmente favoreceria os países do Sul da União Europeia, mas provavelmente causaria danos colaterais à economia global.

Num outro plano temático bastante importante para o atual comércio internacional, Adelino Pereira, docente do ISCET e despachante oficial, dá-nos uma panorâmica do acordo comercial e de investimento entre a União Europeia e o Canadá. Em *CETA-Comprehensive Economic And Trade Agreement e o Novo Paradigma dos Acordos de Comércio Livre*, identifica algumas das vantagens potencialmente mais significativas para as partes envolvidas nas negociações e implementação do acordo. Na sua abordagem, procurou ainda avaliar se a forma proposta é ambiciosa para um acordo comercial abrangente, ou seja, para além do tradicional argumento sobre os benefícios da eliminação dos direitos aduaneiros. Na análise é feito um balanço das críticas que lhe foram dirigidas, como as de falta de discussão e diálogo aberto com a sociedade civil. São ainda abordadas as dificuldades do atual contexto que se têm vindo a projetar sobre a assinatura e ratificação do CETA, marcado pela indefinição dos resultados do *Brexit* e por um ambiente internacional que favorece um certo protecionismo.

Os transportes são outro tema incontornável do comércio internacional, quer na prática profissional, quer na investigação científica na área. Lúcio Gomes, profissional da área dos transportes e logística e finalista da Licenciatura em Comércio Internacional do ISCET, passa em revista o importante papel da IATA-*The International Air Transport Association*, no transporte aéreo a nível global. Desde a sua fundação em meados do século XX, a IATA assumiu um papel fundamental na representação das companhias aéreas a nível mundial e na promoção de um serviço aéreo cada vez mais seguro, económico e sustentável. A uniformização dos procedimentos técnicos e legais, a cooperação entre as companhias aéreas e a criação de sistemas de gestão de facturação e pagamentos, têm sido as principais medidas implementadas com grande sucesso pela IATA. Como demonstra no seu artigo, a influência desta organização não-governamental no transporte aéreo, quer a nível do transporte de passageiros, quer a nível do transporte de mercadorias, é grande. Integra atualmente mais de duzentas e cinquenta empresas aéreas em todo o mundo, as quais asseguram mais de 80% do tráfego aéreo mundial, com crescente relevância para o comércio global.

No último artigo do Caderno, Norberto Bessa, docente do ISCET e quadro empresarial na área da logística e distribuição, analisa algumas das melhores práticas e processos de otimização de recursos, para produzir produtos de alta qualidade de forma rápida e eficiente a baixo custo. A logística e distribuição é nuclear do comércio internacional, hoje cada vez mais ligado a cadeias globais. Em *Lean Production: Application To Warehouse* faz uma revisão da literatura dando uma panorâmica da investigação científica sobre o assunto. Ao mesmo tempo, aborda questão da aplicação de técnicas objetivas e metas de *lean production* à gestão e organização de armazéns. Como faz notar na sua análise, estas devem ser implementadas como parte de uma iniciativa global da empresa. Ao mesmo tempo, devem corresponder a uma cultura permanente da organização, em todos os níveis e não a algo meramente temporário e limitado.

Por tudo isto, este Caderno de Comércio Internacional que agora se edita no âmbito da “Percurso & Ideias”, será certamente uma útil leitura para académicos, profissionais e estudantes ligados ao comércio internacional.

José Pedro Teixeira Fernandes

GERMAN BALANCE ON CURRENT ACCOUNT SURPLUSES

CAUSE OR RESULT OF MACROECONOMIC INSTABILITY IN THE EUROZONE ?

Gerhard Feldmeier

Professor of Economics and International Management at Hochschule Bremerhaven
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ABSTRACT

In the course of the recent economic crises in various EU member countries current account balances are in the focus of political and economic debates next to discussions about public budget deficits and total national indebtedness. While the focus there is traditionally in an analysis of the causes and negative consequences of twin deficits of high public debt and negative trade balances, economies with persistent trade balance surpluses are also critically examined and blamed for being responsible for global financial and national debt crises. Thus high German trade balance surpluses are expected to be a main reason for macro-economic imbalances within the EMU countries. However, a closer look at the target regions of German exports within this perspective modifies this assumption, also the fact that there is a strong correlation in between strong export surpluses in Germany's trade balance and positive effects for European partner countries in the form of imported intermediate input supplies from them. Another limitation of the criticism of the German trade balance surpluses results from a supply-side consideration of global export industries. According to this Germany with its remaining high share of manufacturing industry in GDP achieves traditional trade balance surpluses, whereas southern European countries with a lower share of production industry tend to be more trade balance deficit countries. These facts suggest that a politically constrained reduction of German trade surpluses and a subsequently weakening of the German economy hardly favor trade deficit countries, but would rather cause a collateral damage for global economic development.

KEYWORDS

Eurozone debt crisis, export trade surplus Germany, significance of national balance on current accounts, export strength, macroeconomic imbalance, demand and supply side perspectives of exports, intermedia input goods imports, investment goods exports, EU Monetary Policy

A. BACKGROUND AND STATEMENT OF THE PROBLEM

During the course of the recent world economic crisis and the accompanying acute economic crisis in various European member states, balance on current account as well as discussion of the level of public debt and new debts have increasingly become the focus of political and scientific argument. Whereas scientific discussion focuses more on clarification of the causes and negative effects of the twin deficits caused by high national debts and negative balance on current account (c.f. Reinhard/Rogoff, 2008), especially economies with permanent balance on current account surpluses are meanwhile being critically scrutinized. It has been confirmed that they are partially responsible for global financial and national debt crisis.

Thus, even countries with a high balance on current account surplus are alleged possibly to trigger “dangerous global macroeconomic imbalance”, which is clearly noticeable especially within single currency areas such as the Eurozone.

Correspondingly there is a demand for political countermeasures in their economies to combat the drifting apart of balances of current account, which endangers stability, and also to block balance on current account surpluses, in order to evade the risk to the regional and global economic fabric.

In consequence, the EU finance ministers agreed at their meeting on 18th September, 2011 in Breslau that in addition to excessive balance on current account deficits in member states, marked balance on current account surpluses which exceed 6% of the GDP for at least two successive years were to be rated as macroeconomic imbalances that endanger stability. Preceding this there had been similar demands made on behalf of the IMF to introduce suitable measures (c.f. managing director Lagarde in the Financial Times dated 14.03.2010). Finally, formal procedures were implemented for the prevention and correction of macroeconomic imbalance, in the form of mandatory ceilings for the balance on current account of member states. Infringement by member states could lead to sanctions in the form of a penalty of up to 0,5% of the GDP (c.f. EU commission, 2013).

The reason for the sanction mechanisms thus defined is that surpluses in the balance on current account of a EU state accompanied by great export strength are at the cost of the other member states and must accordingly be prohibited or immediately reduced. It is alleged that the surpluses in the balance on current account of one member state are weighed against corresponding deficits in the balance on current account of other states, and that this results in a total economic game of zero in the Euro currency zone. Furthermore it is concluded that the current deficits in the balance on current account of critical Euro states is increasingly causing them difficulty in financing their net imports, which drives their debt even higher. In this way, states with deficits in their balance on current account are confirmed as being fundamentally weak competitively, and countries with trade surpluses are allegedly too dependent on exports.

Since Germany has over many years since 2005 reached a surplus of more than 6% in the balance on current account (see following diagram), it has been the subject of increased annual analysis by the EU commission, without however the announced sanctions being imposed.

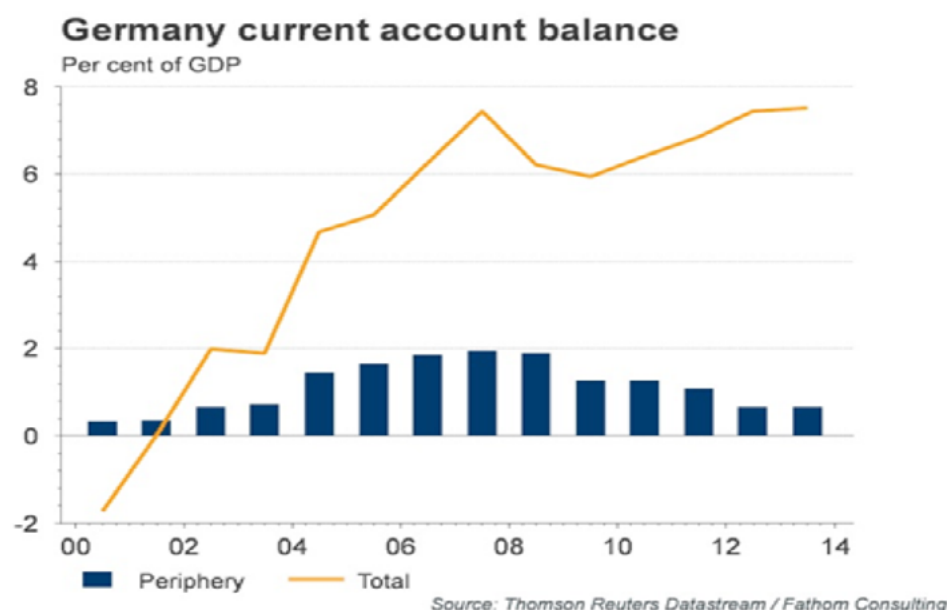


DIAGRAM 1:
German balance
on current
account surpluses
in % of GDP

In its first audit in the year 2012, although the commission on the one hand recognised Germany’s high balance on current account surplus as a reflection of its export strength, on the other hand, in its publicised audit, it found fault with Germany’s “suppressed domestic demand” (Currency Commissioner Rehn in NZZ dated 06.03.2014).

Similarly at the end of 2013 the US Finance Ministry also noted Germany’s “anaemic domestic demand” and called for political measures to increase domestic consumption (c.f. Welter in FAZ dated 30.10.2013).

Keynesian supporters go even further in their criticism of foreign trade imbalance by accusing countries such as Germany which show a high surplus in their balance on current account of enriching themselves at the expense of other, trade deficit countries in a policy of “beggar my neighbour” (c.f. Daveri, 2014) by investing only part of their achieved export gains in imports. In this way, like a vampire, they “suck buying power out of the global system” (Bofinger in FAZ dated 24.03.2014)

A glance at foreign trade statistics confirms that in the year 2013 Germany achieved a surplus in its balance on current account of 201 billion Euros (c.f. DESTATIS dated 07.02.2014). This is the highest yet since the beginning of these statistics and comprises more than 7% of the GDP.

Measured at this absolute amount and converted into US dollars, the surplus in the German balance on current account takes first place in an international comparison, followed by China and Saudi Arabia. When its proportion of the GDP is measured against that of the industrial nations, Germany, with its current 7.3%, is only surpassed by Norway (14%) and Switzerland (around 10%) (c.f. FAZ dated 14.01.2014).

This trend also seems to be continuing in 2014: in the month of September alone a monthly record high in exports of 102.5 billion Euros was achieved (c.f. DESTATIS dated 07.11.2014), and for the whole year an (even higher) surplus in the balance on current account of 7.4% of the GDP has been forecast (c.f. ifo-Institute, 2014). In the first nine months of the year 2014 alone German exports increased by 3.5% compared to the same period in the previous year, although the highest rate of growth is in exports to European countries outside the Eurozone (c.f. FAZ dated 07.11.2014).

In the light of the controversial discussion on the cause and effects to the total economy of the high export surplus of one country and their consequences for other countries, the concrete question as to whether the high German balance on current account surplus mentioned is indeed responsible, as alleged, for macroeconomic divergence in the European Union or for balance on current account deficits in other European countries will be addressed in the subsequent commentary.

There will be further examination of how or to what extent German export success represents a lasting threat to the stability of the Eurozone and impedes economic recovery in unstable countries in the south, or whether it can even offer those countries better chances to overcome crisis and stabilise their economy.

B. EXPRESSION AND DEVELOPMENT OF BALANCE ON CURRENT ACCOUNT IN THE EUROPEAN UNION

In a comparison of the balance on current account in the European countries since the beginning of monetary union in 1999, it is noticeable that they have rapidly drifted apart during this period. Whilst at the outset of the Eurozone these diverged to a relatively low degree (with the exception of Greece, Spain, Portugal and Ireland, which even then already showed high deficits of over 5% of the GDP), they have since drifted apart drastically, with resulting fast increasing surpluses in Germany, Austria, Finland and the Netherlands and increasing deficits in Greece, Spain, Portugal, Ireland, Italy and France, as the following diagram illustrates:

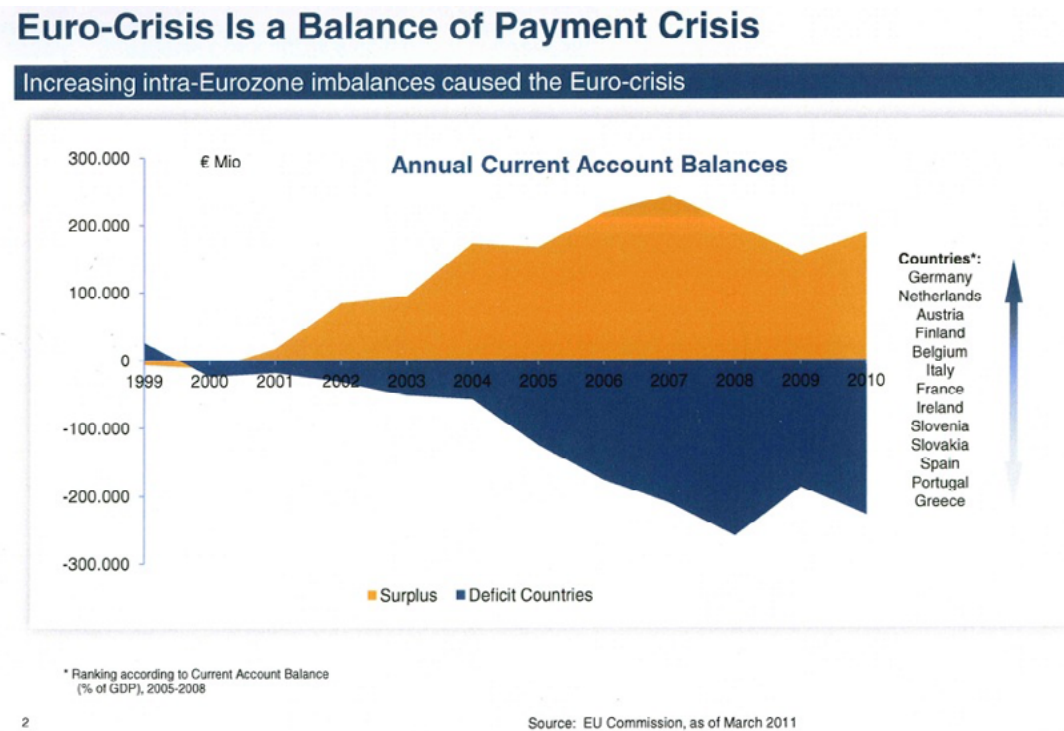


DIAGRAM 2: Annual Current Account Balances in Eurozone countries 1999-2010

In the year 2007 the positive account of the countries with a surplus amounted altogether to an average of some 7% of the GDP, whereas the average negative account of the deficit countries amounted to some 8% of their national trade current account (c.f. Thiemann, 2013). At the same time, between 1999 and 2007 the proportion of the German surplus of trade with other European countries increased from 3% to 5% of the GDP (c.f. Daveri, 2014). These developments lead to the assumption that within the Eurozone high surplus is achieved at the expense of growing deficits, and especially that (measured in absolute figures) the high German surplus could be the main cause of macroeconomic imbalance in the Eurozone.

Yet a closer scrutiny of the target areas of German exports puts this speculation into perspective: despite the aforementioned record amount of the German export surplus of some 200 billion Euros in the year 2013, the export surplus in trade with European countries decreased significantly in the year 2013, “so that the bulk of (five of seven percentage points) of the German trade surplus is with the rest of the world - not with the Eurozone countries” (Daveri, 2014). This marked decline in the German trade surplus with the European countries is a result on the one hand of diminished exports to these countries and on the other hand of increased imports from them. In this way, the German export surplus was reduced by about half in the Eurozone between 2008 and 2014, as illustrated by the following diagram:

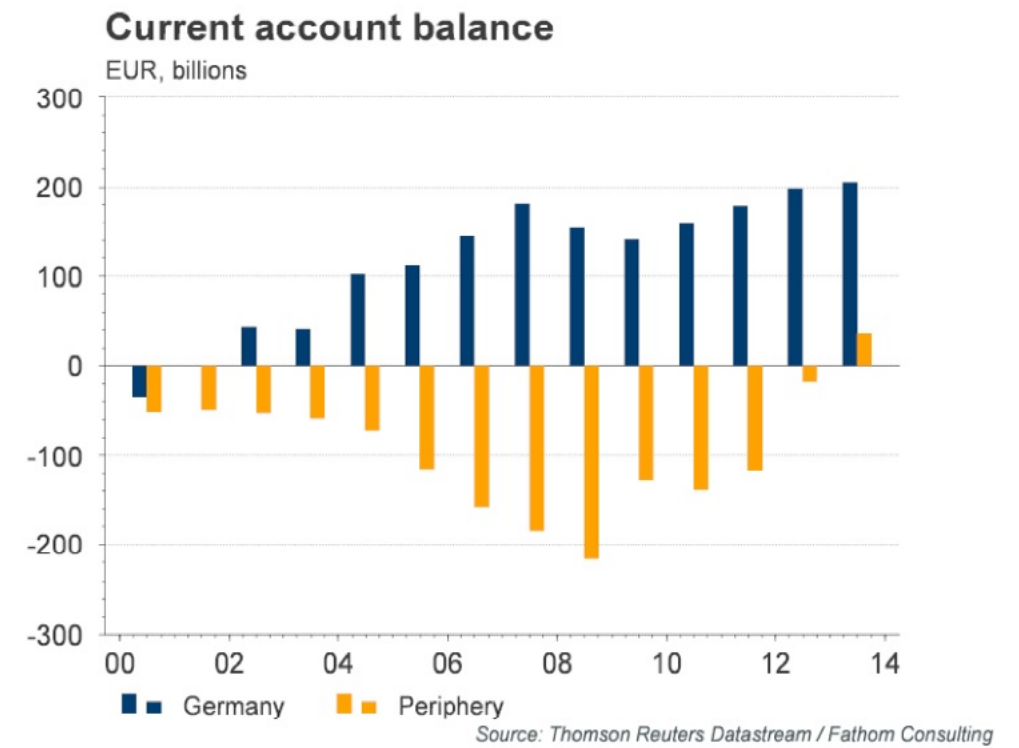


DIAGRAM 3: Fewer surpluses in trade with the EU
German balance on current account surplus with periphery countries of Eurozone, in billion Euros

This “natural” tendency of the national balances of current account to come closer together is demonstrated by the fact that those European countries with a trade deficit imported less in times of crisis and, as a result of (partially externally imposed) reform policies which resulted in a fall in labour costs and a rise in productivity, gained in competitiveness and exported more, causing the balance on current account deficit to be reduced or even – as in the case of Ireland – offset (c.f. Thiemann, 2013).

A medium to long-term continuation of this trend of the balances of current account to draw closer together can be assumed from the fact that Germany and other classic countries with a balance on current account surplus will in the medium term, because of their drop in employment numbers due to a changing demography and a simultaneous rise in the proportion of retired persons, raise the amount of domestic consumption as a result of more demand for self-sufficiency, and will export less.

German foreign trade success can further be put into perspective by considering the German economy’s decreased contribution abroad in the year 2013. This represents the calculated difference between exports and imports, which even caused a decrease in real economic growth (despite the record balance on current account surplus) of some 0.3%. The explanation for this seemingly paradoxical phenomenon is to be found in the fact that balance on current account show nominal values (export and import quantities valued at actual prices), whereas in the foreign contribution a refined evaluation of exports and imports is undertaken in order to understand the quantitative development of foreign trade (c.f. iw-dienst No. 6/2014).

According to this calculation, export volume only increased by some 0.6%, whereas imports rose in real terms by 1.3%, which explains the decline in economic growth in real terms. The explanation of the nominal increase in the balance on current account surplus lies solely in the fact that import prices sank on average by some 1.9% (due mainly to a drop in the price of raw materials and a revaluation of the Euro) whilst export prices dropped on average by a mere 0.5% (c. f. iw-dienst, No. 6/20 14).

The real reason for the increase of the nominal German balance on current account surplus to a record level despite a decreasing surplus of trade with other European countries during the past years is the increase in trade volume with third countries outside the Eurozone. Especially the growing demand in threshold countries more than compensates for the decreased trade surplus in the Eurozone. In addition to this, the high trade surplus results solely from a strong goods trade, whereas the national balance on service current account is notoriously at a deficit (c.f. Grömling in iw-trends, 2013).

In a further close analysis of the foreign trade statistics for import quotas in the European countries, criticism of the excessively low level of German imports from abroad can further be put into perspective: the German import quota in international comparison is on a relatively high level, which leads to the conclusion that Germany is a rather open country, well-disposed to imports. In the year 2013 an increased value of imports from the Eurozone amounting to 401 billion Euros (of a total of 895 billion Euros) demonstrates that Germany does not restrict exports (c.f. DESTATIS dated 07.02.2014). A selective comparison of the import quotas in the European countries further shows that the German proportion of imports of some 40% is far higher than in any of the other big European countries, such as France, Spain, Italy or Great Britain, each of which only shows an import quota of less than 30% (c.f. WKO, 2014). This proves in a comparison of European countries that the German economy is to a relatively high degree open to imports (c.f. iw-dienst No. 19/2013 and Knop, 2014).

C. BALANCE ON CURRENT ACCOUNT SURPLUSES – CAUSE OR RESULT OF EXPORTS OF CAPITAL?

Since current account and capital account always balance in the sum total of an economy, the fundamental question is whether a foreign flow of capital follows a preceding flow of goods, or is it determined by it? The EU commission bases its criticism of high balance on current account surpluses exclusively on the supposition that the large German surpluses of goods exports are accompanied by enormous exports of capital. That is to say that the former are the cause of the latter, and that therefore the export of capital follows the export of goods. Yet such a view of “hydraulics at the hub of trade” (Kooths, 2014), an account automatism, blacks out the capital side and judges too much on one dimension. A closer analysis of the balance of capital reveals that this occasionally results from other economic factors and channels and does not simply “trot with financial automatism mechanically after foreign trade”. (Kooths, 2014).

In the classic textbook definition, the balance on current account surplus of an economy represents that portion of its savings which is not invested domestically. Hence a country with a large balance on current account surplus, like Germany, exports a large proportion of its savings abroad in the form of export of capital. Exports of capital in the form of direct foreign investments and foreign investment capital, to this point of view, are regarded as being entered against a balance on current account surplus (c.f. ifo-Institut, 2014), though under other circumstances and as a reversal of the cause and effect principle to which the EU commission refers. According to this logic, decisions to save are the necessary conditions for investment and here the transfer of domestic savings to foreign countries is a prerequisite for the imports there. This follows the classic reasoning that the “balance of capital gives the orders, the balance on current account obeys” (Böhm-Bawerk, 1924). The investment of domestic savings surplus abroad therefore, seen

from this angle, provides reasons for increased consumption and more imports, and so finances deficits in the balance on current account. This is explained very well by the example of the USA, where flows of capital from abroad finance additional consumption and have allowed the balance on current account deficit to increase considerably over time. (c.f. Schnabl, 2014). In this respect, with the investment abroad of a domestic savings surplus, there is a temporary shift of the purchasing power in that direction, and consequently the flow of purchasing power is followed by a later flow of current account. In this way, flows of capital, when it comes to the point, are an intertemporal calculation in goods economy (c.f. Kooths, 2014).

In this context, a German tendency to save a great deal by abstaining from consumption can be identified as an alternative cause of domestic balance on current account surplus. But certainly this is explained not so much by stereotype German qualities such as parsimony or aversion to risk, but rather as an expression of a justified anxiety with regard to the financial burdens of an ageing society (c.f. Steltzner, 2014). The fact that a large proportion of German national savings is invested more abroad than at home is certainly based on the assumption that there is on the one hand a stronger growth dynamic, especially in direct investment capital, and on the other hand that higher returns can be achieved, or that higher returns exist in investment capital. Hence, as the following diagram illustrates, in spite of a temporary fall in value during the last global economic crisis, both German gross and net foreign assets increased in the past 15 years up to the beginning of 2014 to just under 1.4 billion Euros; and the average returns from German foreign assets for the period 2005 to 2013 amounted to some 4% (c.f. iw-dienst, 35/2014).

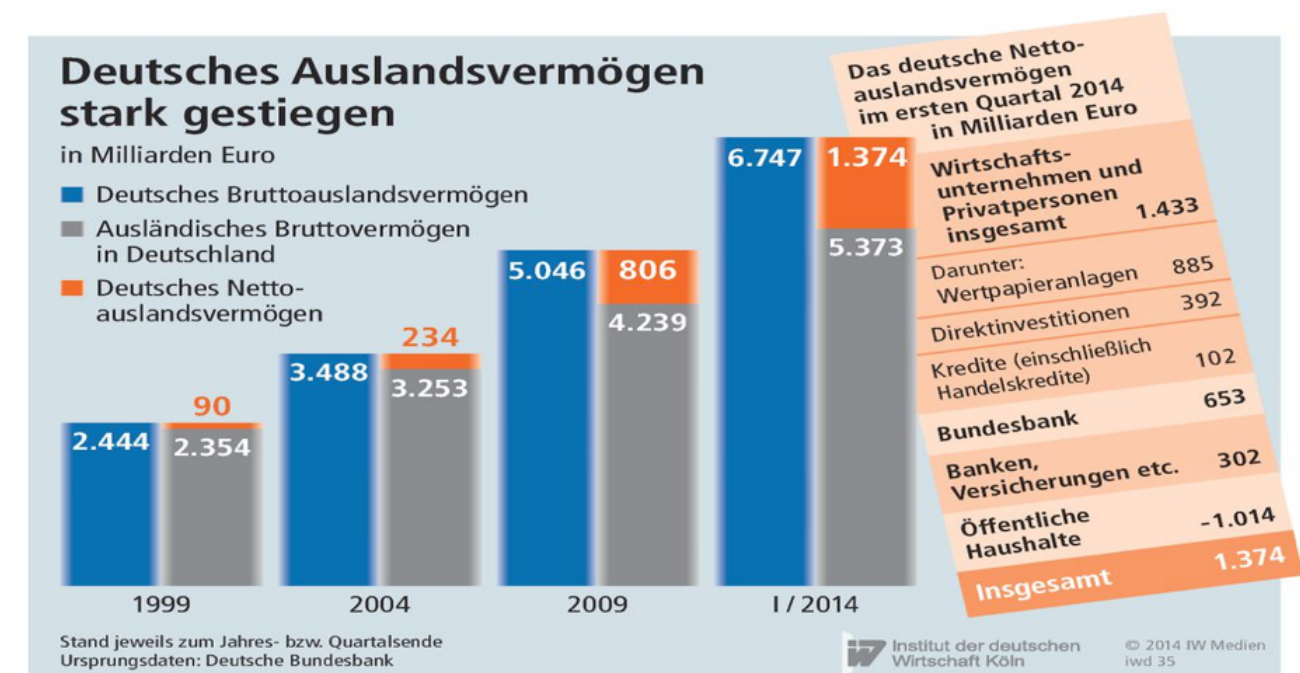


DIAGRAM 4: German foreign assets greatly increased

In billion Euros	German net assets abroad in first quarter 2014 in billion Euros	
- German gross assets abroad	Businesses and private persons, total	1,433
- Gross foreign assets	Including:	
- German net assets abroad	Securities	885
	Direct investments	392
	Loans (incl. trade loans)	102
	Bundesbank	653
	Banks, insurance etc.	302
	Public budgets	- 1,014
	Total	1,374

State at end of year or quarter, resp.

Source: iw-dienst 35/2014, P. 7

Alternatively, domestic balance on current account surpluses are also judged to be a reflection of weak domestic investment (c.f. Fratzscher, 2013 and Plickert, 2014). Especially Germany is criticised for too little domestic investment and for exporting a large proportion of savings abroad instead (c.f. ifo-Institut, 2014). According to this view, exports surplus is not the sign of economic strength; it is even disadvantageous to the national economy. This applies especially when it results from too little private domestic investment demands and (too) little expenditure on public infrastructure, and is therefore an expression of the neglect of a policy for sustained domestic growth.

To go even further, a domestic balance on current account surplus is seen as an advancement of growth in other European countries in the form of a “blood transfusion” (Sinn, 2014), when goods there are available in excess of their manufacture at home. This, by means of imported capital transfers, increases productivity in those countries, and creates market capacities, thus inducing a rise in the national income there (c.f. Kooths, 2014).

From this point of view, domestic balance on current account surpluses are not at the expense of foreign countries, but together with exports of capital even encourage economic development there, as long as this capital is mainly used for sustained investment and not so much for consumption purposes.

Conversely, profitable domestic capital assets abroad also encourage consumption, so that this can strengthen demand at home in the medium term. Thus, with free movement of capital there cannot really be any national losers (c.f. Kooths, 2014).

Independent of any macroeconomic consequences and alleged disruptions in the Eurozone, decisions are made in Germany and other European countries on savings at home and investments abroad by individual economic players in terms of their expected interest returns. The sum total of all the balances of national capital and current account is therefore the result of decisions made by individual economies, which are to a great extent beyond political regulation.

D. INTERPRETATION OF GERMAN BALANCE ON CURRENT ACCOUNT SURPLUSES FROM A DEMAND ORIENTATED PERSPECTIVE

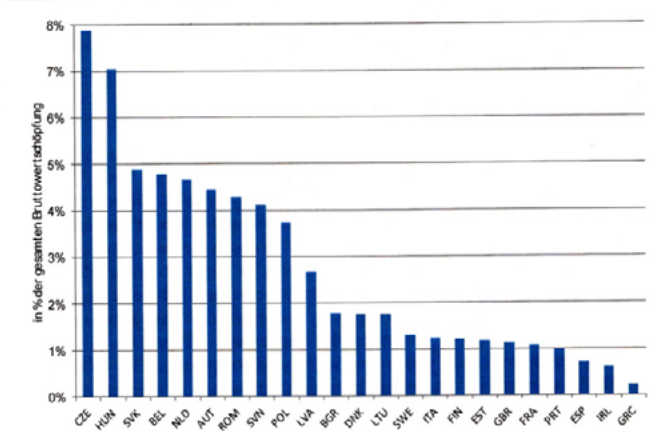
The implied accusation by the EU commission and other countries, that economies with balance on current account surpluses become rich at the expense of those with deficits is based on a one-sided explanation from the perspective of demand of how balances of current account occur. Seen from this point of view, a balance on current account deficit results from the fact that the domestic production of a country is not sufficient to cover domestic consumption and investment demands; correspondingly, a balance on current account surplus results from domestic production which exceeds the domestic demand for goods, causing the respective difference in terms of net goods import or export. As a simple approach to solving the problem of reducing these differences or causing the balance on current account to draw nearer together, deficit countries are advised to rely less and surplus countries to rely more on foreign demand. In addition, politically fixed ceilings or lower limits could serve as an incentive.

Such considerations ignore the fact that the German balance on current account surpluses based on export strength, above all, also have positive effects on the European partner countries in the form of imported intermedia inputs from them, money which flows into and plays a decisive role in the manufacture of German export goods.

According to a current Prognos-Institute study on behalf of Bavarian Industry, in the year 2012 alone German companies received intermediate goods from other European countries amounting to 409 billion Euros, which flowed exclusively into the manufacture of export goods (c.f. vbw, 2014). Of these, in respect of the supplier countries, the highest number of intermedia inputs imports was allotted to the Netherlands and Belgium (not least because of their large seaports of Rotterdam and Antwerp), followed by France, Italy, Great Britain and the Czech Republic. According to the calculations upon which it is based, there is considerable creation of value for classic German export goods in European supplier countries, out of which in turn 3.5 million jobs result. As the following two diagrams illustrate, in this way alone some 8% of the gross value creation of the Czech Republic is based on German industrial demand for intermedia inputs goods, followed by Hungary with 7%, Slovakia with just under 5% .The crisis countries Italy, France, Portugal, Spain, Ireland can also write up appreciable proportions of gross value creation and employment as a result of intermedia inputs exports to Germany.

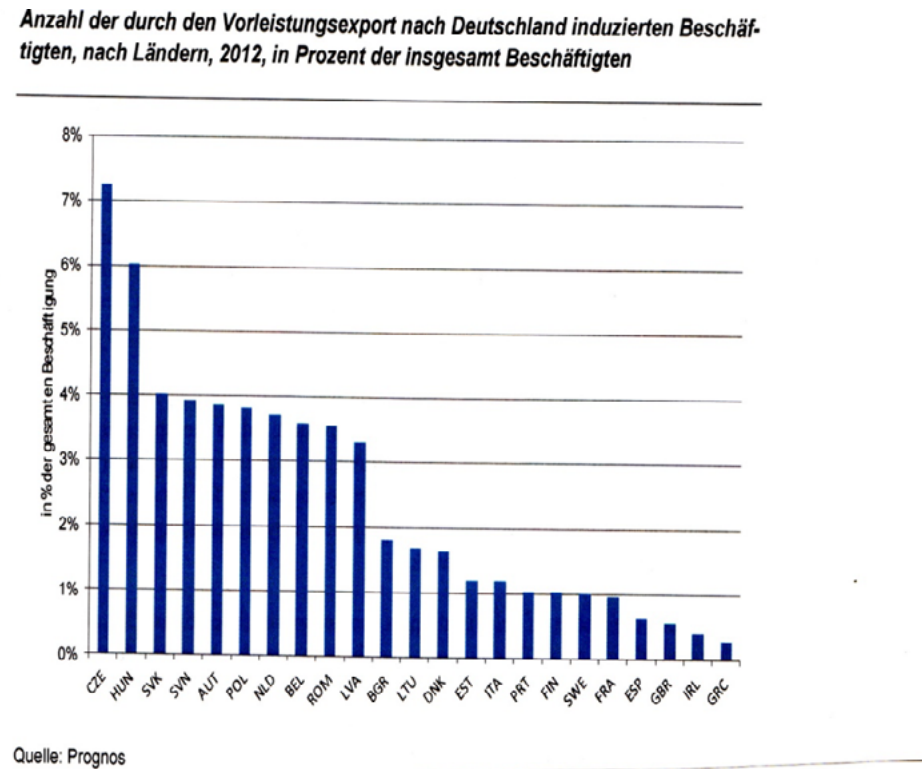
DIAGRAM 5: Proportion of the gross value creation generated by intermedia inputs exports to Germany in relation to the total gross value creation of national economies in 2012 according to country, in percentages:

Anteil der durch den Vorleistungsexport nach Deutschland induzierten Bruttowertschöpfung in Relation zur gesamtwirtschaftlichen Bruttowertschöpfung, nach Ländern, 2012, in Prozent



Vertical: percentage of total value creation
Source: vbw 2014, P. 7.

DIAGRAM 6: Number of jobs generated by intermedia inputs exports to Germany in 2012 according to country, in percentages of total number of employed:



Vertical: percentage of total employment

Source: vbw 2014, P. 9.

With reference to the positive effects on employment in these intermedia inputs exporting countries per country, Poland, with 600.00 jobs, takes first place, followed by the Czech Republic, the Netherlands and Romania, each with a good 300.00 jobs, and Italy and France (c.f. vbw, 2014).

The closely interwoven production of the European economies as expressed in terms of large proportions of intermedia inputs imports shows that German export success is not necessarily at the expense of other EU states; or a called-for reduction of German exports (which comprise to a great extent intermedia inputs exports) would cause a considerable drop in the number of exports in European supplier countries, which would, among other things, increase their selective balance on current account deficits even further.

E. EXPLANATION OF GERMAN BALANCE ON CURRENT ACCOUNT SURPLUSES FROM A SUPPLY PERSPECTIVE

Criticism of German balance on current account surpluses can similarly be put into perspective by scrutinising export goods industries from a supply angle. In this context, imbalance in balances of current account is based on economic structures that have grown historically and allowed certain countries to become (net) suppliers and others (net) demanders. In this context, the dominant flow of world trade can be explained chiefly by reasons connected with supply. Consequently national economies with a relatively high proportion of industry are predestined for balance on current account surpluses, so that their national structure of tendered goods is, when it comes to the point, decisive in this respect (c.f. Grömling in iw.trends, 2013). The predominantly high availability factor in countries rich in raw materials, and similarly in highly developed economies the traditional availability of infrastructure and the range of tendered goods in existing manufacturing trades, are taken as an explanation of balance on current account.

Hence, European countries with a (remaining) high industrial proportion of the GDP e.g. Germany (24%), Austria, Switzerland and Sweden (each with around 20%) achieve traditionally balance on current account surpluses, whilst countries with a lower industrial proportion of under 15% and a higher proportion of public services (e.g. Greece, Portugal, Spain, France and Great Britain) tend to be classic countries with a balance on current account deficit, as illustrated in the following diagram:

DIAGRAM 7: Industrial proportion and balance on current account

Proportion of manufacturing trades of the total economic value creation and share of the balance on current account of the GDP in the year 2007, in percentages

	Industriean teil	Leistungsbilanz
Deutschland	24	8
Irland	22	-5
Japan	21	5
Österreich	20	4
Schweiz	20	10
Schweden	20	9
Italien	19	-2
Belgien	16	2
Spanien	15	-10
Portugal	15	-9
Niederlande	14	9
Dänemark	14	1
USA	13	-5
Frankreich	12	-1
UK	12	-3
Griechenland	9	-14

Vertical: Germany, Ireland, Japan, Austria, Switzerland, Sweden, Italy, Belgium, Spain, Portugal, Netherlands, Denmark, USA, France, UK, Greece

Source: <http://wirtschaftlichefreiheit.de/wordpress/?p=7809>

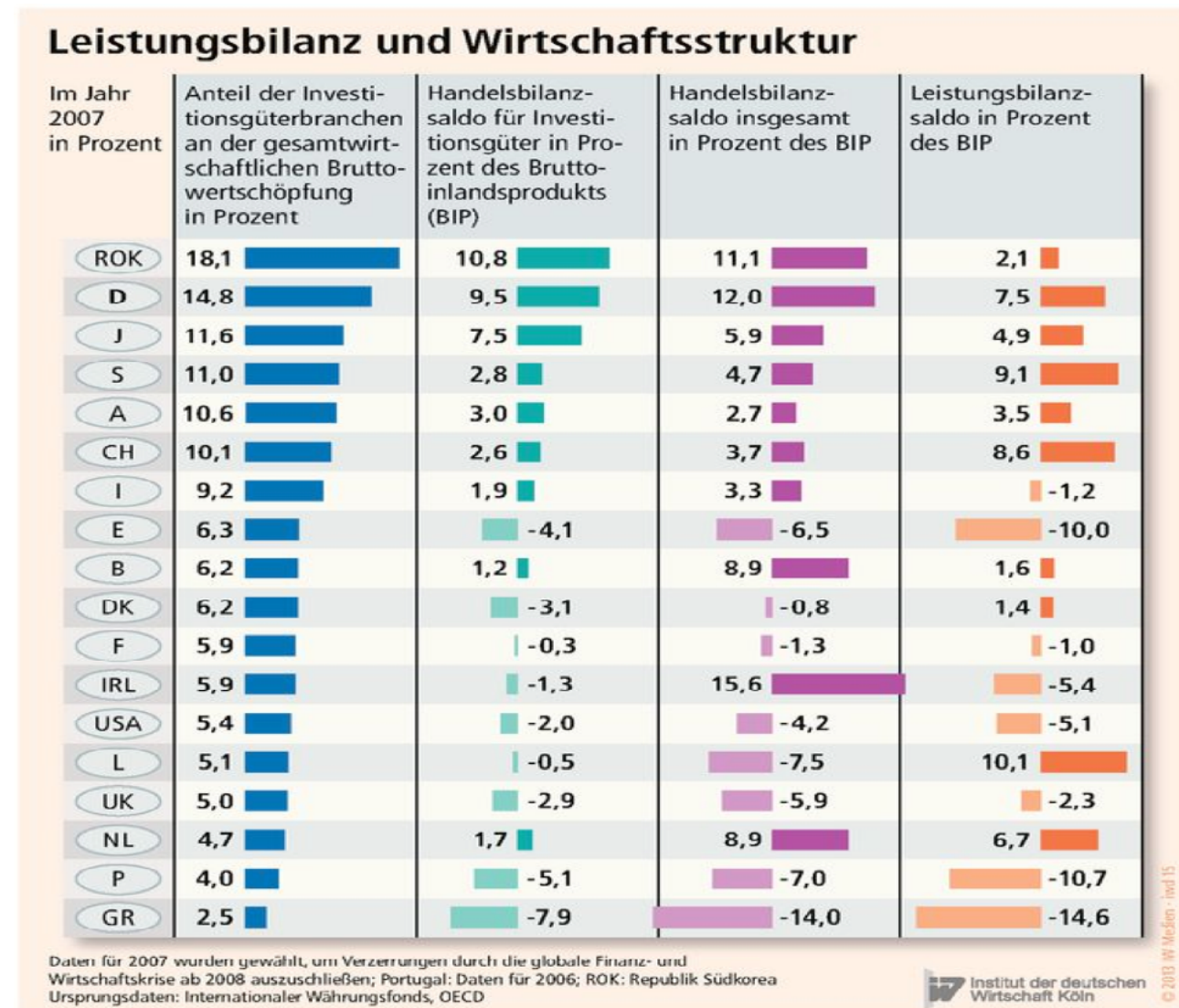
Whilst many products in the service sector have little international trade value because of their national design and/or due to additional trade restrictions, international trade in modern manufactured goods, the production of which is carried out to a great extent by global job-sharing, dominates today's flow of global trade (c.f. Grömling in iw-trends, 2013).

If one subsequently analyses classical German manufactured products according to the type of goods, they can be seen to show an extremely large proportion of investment goods. Thus the German balance on current account surplus results for the most part from a surplus of trade in investment goods.

This is explained on the one hand by the fact that investment goods industries in Germany are highly conspicuous in a

global and European comparison: with almost 15% of total economic value creation they are only surpassed by South Korea (18%), whilst other European countries such as Spain, France and Great Britain or (outside Europe) the USA only achieve a third of this amount, as shown in the following diagram:

DIAGRAM 8: Balance on current account and economic structure



In year 2007	Proportion of investment goods branches in total economic gross value in % of GDP	Balance on trade account for investment goods in % of GDP	Total balance on trade account in % of GDP	Balance on current account in % of GDP
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Data for 2007 were chosen to eliminate distortion by the financial and global economic crisis in 2008; Portugal: data for 2006; ROK: Republic of South Korea. Original data: International Monetary Fund, OECD
 Source: iw-dienst 15/2013, P.3

Especially in a comparison of European countries, this high proportion of the investment goods industry in manufacturing production as a whole, coupled with their great innovative strength and technological competitiveness, proves that appropriate products (mostly in the form of machines and vehicles) meet with high foreign demand on the one hand, showing a high export quota, and on the other hand also serve the domestic market very well. The result is consequently less demand for imports (c.f. Grömling in iw.trends, 2013). Furthermore, these facts make it even clearer that Germany (with its investment goods trade surplus of some 10% of the GDP) is not only a net exporter of investment goods to the up-and-coming emerging economies, but also to European partner countries with comparatively low potential in investment goods industries, which leads them to become net importers of German goods in particular.

Hence, politically imposed reduction of German exports of investment goods could not possibly be compensated for by the balance on current account deficit countries. This would result in a deficiency in the supply of (imported) investment goods at the expense of the extension and further development of national economic structures.

F. MONETARY AND CURRENCY POLICIES AS A TRIGGER FOR IMBALANCES IN FOREIGN ECONOMIES

An alternative approach to explaining the predominant foreign economic imbalances as shown in the divergence over time of balance on current account could be an examination of the design of European and global monetary politics.

Critics base their argumentation on the balance on current account prevalent at the outset of the European Union. At that time – as mentioned above – these only differed slightly, and up to that point had even drawn closer together; in the following years they drifted widely apart, and a block of surplus and deficit countries emerged.

Whilst some of these critics identify the monetary union as being the exclusive cause of this discrepancy, others attribute responsibility to the development of global monetary politics as a whole.

Those who see the European monetary union as such to be the main cause of the drifting apart of balance on current account put this down to the standardisation of exchange rates and the resulting average rate for the Euro for member countries with differing competitive power: this was too high for the countries of the south (with resulting deficits) and for the countries of the north too low (with resulting surpluses). Consequently Germany is recognised as having an advantage in international trade over peripheral European countries, especially because “the German real exchange rate is strongly undervalued relative to the rest of the Eurozone.....which makes its goods artificially cheap, crowding out those of other Eurozone countries from both Eurozone and world markets” (Springford/Tilford, 2014).

In this context, it is further reasoned that the balance on current account surplus in the whole Eurozone, which is mainly due to the permanently high German balance on current account, serves as such to encourage revaluation of the Euro in world trade, “and a strong Euro hits demands for Eurozone exports, especially the more sensitive ones of the southern European member countries, and lowers the prices of imported goods, reinforcing downward pressure on prices” (Springford/Tilford, 2014).

On the other hand, the globally practised expansive monetary policies of the central banks are identified as a driving factor of imbalance in global balances of current account, triggered by a drastic lowering of interest rates by the US American, Japanese and European central banks which began in the year 2001 after the New Economy had burst and has continued throughout the global financial market crisis in 2008 until today.

The flooding of the capital markets with liquidity accompanying this largely put an end to the signal function of interest and was a motor for consumption and particularly investment in construction, especially in peripheral countries in southern Europe, where the interest rate plummeted, and where these countries were no longer at the mercy of risky exchange rates. Contrary to the classic assumption that investments financed by loans must be supported by the same amount of savings, business banks in these countries issued massive loans to businesses and private households at low conditions and of almost unlimited amounts, using cheap money from the central bank without the assurance of the corresponding amount of savings (c.f. Bofinger, 2014). The result of this bank-fed loan boom was overheated markets, rising wages and firm profits, plus a growing foreign demand in these countries, who in this way were living above their means: those countries with great competitive power profited by this (c.f. Schnabl, 2014). Hence between 1999 and 2008 German exports in the Eurozone increased, not least due to monetary politics, by some 79% (c.f. Bofinger, 2014).

According to this reasoning, the central banks, with their collective extremely liberal monetary policy and the accompanying flooding of the markets with liquidity, were what triggered global balance on current account imbalance. In this respect, a basic approach to solving the problem of excessive balance on current account could be to reverse monetary policy by backing down from expansive monetary politics, not only by the European central bank but also by other important global central banks.

G. ALTERNATIVE SUGGESTIONS FOR SETTLING BALANCE ON CURRENT ACCOUNT IN THE EUROZONE

Political and scientific supporters of fixing mandatory ceilings for national balance on current account fail to recognise that these can only to a certain extent be directly influenced by politics because they are a result of market processes decided by consumers, businesses and capital investors. These determine what goods they demand according to individual considerations and needs preference, where they come from or how much money can be saved or where and how they can invest it. Because these decisions, especially in European domestic trade with its open markets, can scarcely be politically controlled, the balance on current account equilibrium between every one of the European economies is a “quite natural phenomenon” (Heise, 2014). Furthermore, in other notable currency zones with a single currency, like the USA, there are imbalances in the balance on current account and macro-economic discrepancies between the individual member states; yet here this as such does not constitute a danger to the national economy, nor is it subject to political corrective measures.

Additional or alternative demands of theoretical enquiry for the reduction of national balance on current account surpluses, for example from the IMF or from union representatives, go even further and refer to measures for increasing domestic demand in the countries in question. For Germany there is a call for an excessive rise in wages, which is meant to increase national imports and decrease exports.

However such an approach ignores the fact that massive rises in wages are followed not only by positive effects on consumption, but also by negative effects on costs for the respective businesses, which diminish national competitiveness and are therefore contra-productive. Thus, according to the Prognos-Institute study, a rise in labour costs in Germany would trigger a short-term positive impulse for domestic demand, but, because of the closely woven fabric of suppliers, the GDP in other countries would in the medium and long term even suffer a sustained decline (c.f. vbw, 2014).

Furthermore, according to calculations by the German Federal Bank, an increase in the average wage level in Germany over and above the usual level in the peripheral countries would hardly bring about any increase in export demands, just

as national debt-financed loans for public spending programmes would not notably boost national import demands from those countries (c.f. Weidmann in ifw, 2014).

Nevertheless, it cannot be denied, and here there is wide scientific consensus, that in Germany there is an acute need for action to increase national investment demands. These have for several years, both on the private and public side, been considerably on the decline, and have clearly been underestimated (c.f. Fratzscher, 2014). Especially in the field of public infrastructure it is noted that there is a lot of ground to be made up in Germany. Yet, in the field of investment goods the called-for increased national investment, both private and public, in Germany, irrespective of the question of financing and of political demands there is, due to lack of national availability and/or insufficient competitiveness, little expectation of improvement in the field of this type of goods imports from countries with a balance on current account deficit among the European partner countries.

To sum up, the data and facts expressed in the above text indicate that balance on current account surpluses do not “to any remarkable extent result in distortions resulting from faulty domestic economical or financial developments” (Weidmann in Deutsche Bundesbank, 2014), and a politically enforced shrinkage of German exports accompanied by a weakening of the German economy scarcely benefits deficit countries. Rather it would trigger “collateral damage to world economic development” (Grömling in FAZ, 2013). Especially because of the very close intertwining of German industrial intermediate inputs import trade with European crisis partner countries, with their great demand for German investment goods exports, a decrease in German exports would not only cause a drop in their exports, but it would also whittle down the basis for public European financial help for handling crisis, help for which Germany provides a large proportion of the liability. Finally, let Abraham Lincoln’s famous saying stand here as representative, “You cannot strengthen the weak by weakening the strong “.

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CETA – COMPREHENSIVE ECONOMIC AND TRADE AGREEMENT E O NOVO PARADIGMA DOS ACORDOS DE COMÉRCIO LIVRE

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RESUMO

O presente artigo aborda a celebração do Acordo de Comércio Livre entre a União Europeia e o Canadá e visa expor alguns pontos principais que figuram no protocolo de apresentação e da agenda negocial proposta entre as partes. Em primeiro lugar, são identificadas algumas das vantagens mais significativas e consideradas como relevantes entre as partes envolvidas. Em segundo lugar, avaliar através do habitual argumento das vantagens da eliminação dos direitos aduaneiros sobre as mercadorias, se a forma proposta no acordo é mais ou menos ambiciosa para a sua concretização. Por último, aferir as críticas resultantes da falta de discussão e diálogo aberto com a opinião pública neste tipo de negociações, agora acrescidas pelas dificuldades da atual indefinição face aos resultados do *Brexit* e à questão da assinatura e ratificação do acordo.

Palavras-chave

Acordo de Livre Comércio; Eliminação de direitos aduaneiros, UE, Canadá

ABSTRACT

this article discusses the conclusion of free trade agreement between the European Union and Canada and aims to expose some points of order set out in the Protocol and negotiating agenda proposal between the parties. Firstly, are identified some of the most significant advantages and considered as relevant between the parties involved. Secondly, check through the usual argument for the removal of customs duties on goods permanently, if the form proposed in the agreement is more or less ambitious for his achievement. Lastly, evaluate the criticism resulting from the lack of discussion and open dialogue with the public in the presentation of this type of negotiations and of the difficulties added by the uncertainty related with the impact of the *Brexit* and the issue of signature and ratification of the agreement.

Keywords

Free Trade Agreement; Elimination of customs duties; EU, Canada

INTRODUÇÃO

Este artigo analisa o contexto e orientações seguidas pela União Europeia relativamente ao esforço em aprofundar relações de comércio livre e criar economias abertas com os demais parceiros no mundo. Leva-nos a equacionar o atual modelo de Acordos de Comércio Livre. Prosseguindo o seu objetivo de obter um crescimento mais rápido e com a

intensificação da cooperação com o maior número de países no Mundo, a União Europeia alterou o paradigma de negociações. A sua política externa foca-se particularmente na importância de se ter tornado no bloco regional, cuja economia e índices de exportações são os maiores do Mundo. Porém, e até 2015, 90% do crescimento mundial foi gerado fora da Europa, tendo a China sido responsável por um terço desta percentagem, motivos que levaram a União Europeia a adotar a sua estratégia para a celebração de Acordos de Comércio Livre com diversos e variados países e blocos regionais. Como exemplo, apontam-se o acordo com Coreia do Sul, os acordos com o Perú e a Colômbia em curso nas negociações e o acordo com o Canadá sobre o qual nos debruçaremos neste breve estudo. Em paralelo, a União Europeia propõe-se continuar a agir a nível multilateral através da OMC. As metas a atingir pelo objetivo da agenda de Doha continuam a ser oficialmente a sua prioridade, sendo os Acordos de Livre Comércio um objetivo específico no âmbito da sua estratégia “Europa Global”.

1. TRÊS VANTAGENS RELEVANTES PARAM A LIBERALIZAÇÃO DO COMÉRCIO

1.1 Crescimento Económico

De acordo com as estimativas da União Europeia, a conclusão de todas as negociações em curso (a Ronda de Doha e os acordos bilaterais) e a realização de programas significativos nas relações da UE com parceiros estratégicos, permitirá atingir em 2020, um nível de PIB de 1%, superior ao que alcançaria de outro modo¹.

1.2 Vantagens para os consumidores

Ainda segundo as mesmas estimativas, os ganhos para o consumidor médio europeu resultantes de uma maior variedade de bens e serviços rondam os 600 euros por ano, aos quais acrescem os ganhos provenientes da baixa de preços.

1.3 Efeitos no mercado de trabalho

A integração da UE na economia mundial graças ao reforço do comércio, tende a gerar mais emprego e com melhor remuneração. Da capacidade europeia de fazer trocas comerciais com o resto do mundo dependem, direta ou indiretamente, mais de 36 milhões de empregos na Europa. Mais de 4,6 milhões de pessoas na UE trabalham para empresas de participação maioritária japonesa e norte-americana².

2. ELIMINAÇÃO DOS DIREITOS ADUANEIROS: ANÁLISE CONCEPTUAL

Das vantagens apontadas e sobre a discussão da abertura aos mais avançados processos de integração económica, importa salientar como vem sendo nota dominante neste tipo de negociações, a isenção ou retirada dos direitos aduaneiros sobre as trocas de mercadorias. Ressaltam desde logo sob este favorável princípio, as questões relacionadas com o proteccionismo e eventuais efeitos sob as economias das partes. Sobre esta importante questão, Teixeira Fernandes (2013, p. 81), salienta que “O uso dos direitos aduaneiros e dos contingentes, de forma a tentar preservar a manutenção do emprego e do rendimento, não pode ser visto como uma panaceia automática. A eventual proteção, a ser feita, teria de ser considerada de uma maneira selectiva, num período temporal mais ou menos curto e tentando obter alguma anuência dos parceiros comerciais.” Não menos relevantes são os aspectos problemáticos de uma lógica de proteccionismo pautal, conforme refere o mesmo autor (*idem*) “Se for desadequada na sua abrangência, ou temporalmente, pode implicar até, para além de efeitos negativos sobre o próprio emprego e rendimento, a obsolescência das estruturas produtivas sectoriais ou até da generalidade da economia, por falta de investimento e de inovação.”

1 - De acordo com as previsões da Comissão, 1% do PIB da UE corresponde em 2015 a 147 mil milhões de euros.

2 - “The transatlantic economy 2010”, D. Hamilton e J. Quinlan, Center for Transatlantic Relations. Johns Hopkins University, e “Basic Survey of Overseas Business Activities, 2010” METI, Japão.

Assim, a UE e o Canadá procuraram alcançar um acordo ambicioso que criará novas oportunidades de comércio e investimento para os agentes económicos de ambos os lados do Atlântico, eliminando barreiras ao mesmo. Através deste acordo, ambas as partes pretendem, também, que as atividades económicas se realizem no quadro de regras claras e transparentes, definidas por autoridades públicas. As Partes consideram ainda que o direito de legislar no interesse público constitui um princípio de base subjacente ao Acordo.

As negociações do ACL – Acordo Comércio Livre entre a União Europeia e o Canadá, designado Acordo Económico e Comercial Global, doravante denominado CETA¹, foram concluídas e assinadas a nível dos negociadores principais em 1 de agosto de 2014. O então Presidente da Comissão José Manuel Barroso, o Presidente do Conselho Europeu, Herman Van Rompuy e o Primeiro-Ministro canadiano dessa altura, Stephen Harper, anunciaram conjuntamente a conclusão das negociações na Cimeira UE-Canadá de 26 de setembro de 2014. O texto do acordo foi divulgado ao público nesse mesmo dia. O texto final do CETA, que seria objeto de uma revisão jurídica, foi publicado em 29 de fevereiro de 2016.

3. MATÉRIAS ESTRUTURANTES PARA O ACORDO²

3.1. Potenciar o crescimento e o emprego

Com o CETA, haverá um impulso significativo na ajuda ao crescimento e ao aumento de emprego em toda a Europa. Com a mudança de paradigma nos Acordos de Livre Comércio, a UE tem vindo a estabelecer programas de harmonização e interesse recíprocos conforme se constata com o acordo estabelecido há quatro anos com a Coreia do Sul, o primeiro acordo com países do continente asiático. Com esse acordo, verificam-se já resultados de grande aumento nas exportações de produtos da União Europeia, traduzidos por um crescimento de 55% nas mercadorias e em mais de 40% nos serviços.

3.2. Desmaterialização (pautal) dos direitos aduaneiros

Recorrendo de um velho *slogan* utilizado na celebração de qualquer acordo preferencial, o acenar da erradicação de direitos aduaneiros para as mercadorias trocadas entre as partes, é garantia de ganhos potenciais para todos. Desde logo, e no caso, a previsão de poupar aos exportadores europeus cerca de 600 milhões de euros por ano, isentando de direitos aduaneiros a totalidade de todos bens industriais. Como ocorrido no acordo entre a Coreia do Sul, haverá uma calendarização inicial, para salvaguarda dos produtos mais sensíveis como alimentos e produtos agrícolas, diferente do programa de desmaterialização pautal nos produtos industrializados. Após a entrada em vigor do acordo, está previsto a isenção total de direitos aduaneiros nas trocas entre a EU e o Canadá sobre quaisquer produtos industrializados. Os importadores europeus terão também grande benefício com isenção de custos na obtenção de matérias-primas, peças, componentes e demais bens de equipamento, possibilitando o aprovisionamento das suas indústrias e atividades laborais, fazendo igualmente baixar os custos de produção e venda dos produtos transformados. Setores como a indústria alimentar e a agricultura, verão a médio prazo, extinguir-se alguns dos constrangimentos ainda existentes, através da exportação para o Canadá.

1 - CETA - Comprehensive Economic and Trade Agreement

2 - A exposição deste texto segue de perto a informação oficial da Comissão Europeia sobre o assunto.

A abertura do mercado agrícola¹ permitirá baixar os preços na Europa e fornecer aos seus consumidores, mais opções de escolha. Considerados como dos maiores produtores de alimentos de alta qualidade, a UE beneficiará de melhoria do acesso ao mercado do Canadá, dos consumidores de maior poder de compra. Também resulta da negociação deste acordo, um promissor resultado para as indústrias de produtos agrícolas transformados, sendo este um setor bastante diferenciado nas exportações UE. O sector vinícola e das bebidas espirituosas está igualmente animado com o acordo, não só pela queda dos direitos aduaneiros como na revogação das barreiras ao comércio mais relevantes, como as medidas de política comercial mais atinentes a este tipo de mercadorias. Abrir-se-ão também para este setor, portas a um mercado interessante. No que diz respeito aos produtos mais sensíveis, tais como carne de bovinos, carne de porco, e milho doce, na parte UE e laticínios do Canadá, o CETA limitará o acesso preferencial aos contingentes. O acordo CETA não prevê abertura ou isenção para as aves ou ovos nas trocas de ambos os lados e manterá o sistema de preço de entrada da UE.

3.3. Acesso de empresas da UE a candidaturas de contratos públicos no Canadá

Após o acordo CETA as empresas da UE poderão candidatar-se e licitar contratos públicos no Canadá em todos os níveis de governo. Numa medida inovadora, pela primeira vez isto incluirá decisões das autoridades provinciais, responsáveis por uma grande parte das despesas públicas, do Canadá. Estima-se que por ano, o governo federal do Canadá, províncias e municípios, comprem bens e serviços com valores que atingem mais € 30 biliões recorrendo a contratos e desempenho de empresas privadas. As empresas europeias beneficiarão ainda com o CETA pois com este acordo, serão as primeiras empresas externas a obter esse nível de acesso aos mercados de contratação pública do Canadá. Nenhum outro acordo internacional celebrado pelo Canadá oferece oportunidades semelhantes.

3.4. Intensificar cooperação regulamentar

Com o CETA, a UE e o Canadá decidiram criar um fórum de cooperação regulamentar. O fórum funcionará como um sistema voluntário para troca de experiências e informações relevantes entre os reguladores e para ajudar a identificar áreas onde os reguladores poderiam cooperar. Criou-se um capítulo sobre os obstáculos técnicos ao comércio (OTC) o qual contém disposições para melhorar a transparência e promover contactos de mais aproximação entre a UE e o Canadá e regulamentos técnicos. A UE e o Canadá acordaram também fortalecer ainda mais os laços entre seus organismos de normalização.

A União Europeia e o Canadá concordaram em aceitar os métodos de avaliação da conformidade, a certificação e prova da conformidade, fornecidos por entidades ou institutos especialistas em setores como equipamentos elétricos, brinquedos, máquinas, e equipamento de medição. Isto significa que um organismo de avaliação da conformidade na UE pode testar produtos da UE para exportação para o mercado canadiano, de acordo com regras do Canadá e vice-versa. Evitam-se deste modo, a duplicação de processos de avaliação e ou certificação, obtendo-se desde logo com esta simplificação, uma significativa redução de custos para as empresas e naturalmente para os consumidores.

3.5. Defesa dos direitos de propriedade intelectual e dos produtos tradicionais

O CETA vai criar mais de um nível de igualdade em direitos de propriedade intelectual entre o Canadá e a UE. O Canadá vai exercer a sua proteção de direitos de autor em conformidade com as regras da Organização Mundial da Propriedade Intelectual. O CETA também ajudará os músicos, artistas e outras pessoas que trabalham em indústrias criativas para ser devidamente recompensados pelo seu trabalho. O CETA respeitará os direitos de autor e fomentará a devida aproximação das regras do Canadá com aquelas existentes na UE quando se trata de patentes e de gestão de direitos digitais, bem como a responsabilidade dos prestadores de serviços de internet.

1 - A negociação do acordo abre as portas à indústria e comunidade rural; http://trade.ec.europa.eu/doclib/docs/2016/july/tradoc_154775

3.6. Abertura do comércio de serviços

Estima-se que um grande desempenho das economias da União Europeia e do Canadá, será resultante do aumento global da abertura de comércio e da prestação de serviços estabelecidos no acordo. O CETA trará novas oportunidades para as empresas europeias, criando o acesso ao mercado canadiano a sectores-chave, como são os serviços financeiros, as telecomunicações, a energia, os transportes e logística, e o turismo. Os valores de crescimento económico poderão traduzir-se para a economia da UE num aumento de 5,8 biliões por ano, assim que esteja totalmente implementado o acordo. Haverá naturalmente um fluxo maior de circulação de pessoas e consequente transferência de *know how* entre os diversos prestadores de serviços e pessoal chave das empresas entre a UE e o Canadá. Isto é relevante com empresas de dimensão global, muito habituadas em ambientes de internacionalização. Algumas categorias de profissionais mais relacionados internacionalmente aproveitarão vantagens no acesso a serviços externos mesmo que de forma temporária como consultoria aduaneira, e uma variedade de setores como a contabilidade, arquitetura, agentes de navegação, ou engenharia. Na engenharia em particular, esta possibilidade tornará mais fácil para as empresas realizar e manter contratos de manutenção de pós-venda e acompanhamento. Ao nível do reconhecimento mútuo de qualificações e profissões regulamentadas, o acordo contempla igualmente essa vertente, o que permitirá manter o desafio da internacionalização da prestação de serviços.

3.7. O Acordo e o investimento direto estrangeiro

Uma das grandes alterações face a um típico acordo de livre comércio reside na inclusão do investimento. Pela primeira vez num acordo deste tipo, as empresas da EU têm possibilidade de investir fora da UE. Com o CETA, não existirão barreiras para os investidores que desejam entrar no mercado canadiano, assegurando-se uma salutar igualdade no tratamento dos investidores europeus. Para melhorar o clima de investimento e oferecer mais segurança aos investidores, a UE e o Canadá comprometeram-se a certos princípios fundamentais, tais como o princípio de igualdade e respeito no tratamento de investidores nacionais e estrangeiros da mesma forma (discriminação).

Está previsto o recurso à arbitragem para um tribunal de resolução permanente de conflitos de investimento. Compete à UE e ao Canadá designar os membros do tribunal, com isenção e antecedência. Os juízes terão de ser suficientemente qualificados e demonstrar comprovada conduta ética. Os três membros do tribunal a lidar com um determinado litígio serão alocados aleatoriamente para garantir a sua imparcialidade. O sistema de recurso será semelhante a sistemas jurídicos nacionais. Existe ainda um compromisso entre a UE e o Canadá para trabalhar com outros parceiros comerciais de forma a criar um tribunal permanente e multilateral de investimento.

Segundo a Comissão Europeia, nem o acordo em geral, nem o sistema de arbitragem de conflitos de investimento em particular, vai colocar em causa regras europeias e nacionais relacionadas com os alimentos ou questões ambientais na União Europeia. Os produtores canadianos só poderão exportar e vender produtos na UE se respeitarem plenamente as regras e normas europeias relevantes e sem qualquer exceção.

3.8. Assegurar a cooperação futura

O CETA prevê um quadro para resolução de quaisquer futuras divergências entre a UE e o Canadá sobre o acordo. Este quadro aplica-se na maioria das áreas do acordo. O sistema apresenta-se como um último recurso, caso as partes não conseguirem encontrar uma solução por outros meios. Haverá um conjunto fixo de procedimentos e prazos. Como uma última alternativa para um mecanismo de resolução de disputa formal, a UE e o Canadá também fixaram as regras de mediação fazendo face a qualquer medida que venha a impedir o normal desempenho do comércio e investimento entre a UE e o Canadá. As partes podem assim, usar esta mediação de forma voluntária.

4. O ACORDO CETA E AS REGRAS DA OMC¹

No CETA procurou-se promover o comércio internacional a par do desenvolvimento sustentável nas suas dimensões económica, social e ambiental. Respeita as práticas de bom comércio e do quadro negocial da OMC nas matérias a seguir explicitadas.²

4.1. Matérias do Acordo CETA que permanecem no âmbito da OMC³

Acordo sobre a Agricultura, o Acordo sobre a Agricultura constante do anexo 1A do Acordo OMC;

Acordo Anti-Dumping, o Acordo relativo à aplicação do artigo VI do Acordo Geral sobre Pautas Aduaneiras e Comércio de 1994 constante do anexo 1A do Acordo OMC;

Acordo sobre o Valor Aduaneiro, o Acordo relativo à aplicação do artigo VII do Acordo Geral sobre Pautas Aduaneiras e Comércio de 1994 constante do anexo 1A do Acordo OMC;

Acordo sobre as Medidas de Salvaguarda, o Acordo sobre as Medidas de Salvaguarda constante do anexo 1A do Acordo OMC;

Acordo TRIPS, o Acordo sobre os Aspectos dos Direitos de Propriedade Intelectual Relacionados com o Comércio, constante do anexo 1C do Acordo OMC;

GATT de 1994, o Acordo Geral sobre Pautas Aduaneiras e Comércio de 1994 constante do anexo 1A do Acordo OMC;

Origem das mercadorias, mercadorias de uma Parte, os produtos internos tal como entendidos no GATT de 1994 ou as mercadorias acordadas pelas Partes, incluindo as mercadorias originárias dessa Parte;

Sistema Harmonizado (SH), o *Sistema Harmonizado de Designação e Codificação de Mercadorias*, incluindo as respetivas regras gerais de interpretação, notas de secção, notas de capítulo e notas de subposição.

4.2. A inovação na simplificação aduaneira

Dos itens apontados, destaca-se a relevância dada à questão do valor aduaneiro e da origem das mercadorias. Desde logo é descrito como Valor das matérias não originárias, o valor aduaneiro das matérias no momento da sua importação na Parte, como determinado em conformidade com o Acordo sobre o Valor Aduaneiro. O valor das matérias não originárias deve incluir todos os custos incorridos com o transporte das matérias para o local de importação, nomeadamente de transporte, carga, descarga, manuseamento ou seguro. Se o valor aduaneiro não for conhecido ou não puder ser determinado, o valor das matérias não originárias será o primeiro preço determinável pago pelas matérias na União Europeia ou no Canadá.

O CETA simplifica e altera o paradigma quanto à prova de origem e requisitos de aceitação recíproca neste tipo de acordos aduaneiros. Os produtos originários da União Europeia, aquando da importação no Canadá, e os produtos originários do Canadá, aquando da importação na União Europeia, beneficiam do tratamento pautal preferencial, com base numa declaração («declaração de origem»).

Está assim previsto no CETA, a utilização pelos exportadores da EU, do sistema de Exportador Registrado⁴ em matéria de prova de origem.

1 - WTO – World Trade Organization; OMC – Organização Mundial do Comércio é uma organização criada com o objetivo de supervisionar e liberalizar o comércio internacional.

2 - Também aqui é seguida de perto a informação oficial da Comissão Europeia sobre o assunto.

3 - Acordos existentes no âmbito da OMC que permanecerão no CETA <http://data.consilium.europa.eu/doc/document/ST-10973-2016-INIT/en>

4 - REX - Está previsto no Regulamento de Execução (UE) N.º 2015/2447, a partir de 01/01/2017, o sistema de Exportador Registrado – REX - entrará em vigor como um novo sistema de certificação de origem das mercadorias, a introduzir progressivamente pela UE no âmbito de aplicação dos seus acordos comerciais preferenciais, o qual começará, no entanto, a ser logo nesta data aplicado, no quadro do Sistema de Preferências Generalizadas (SPG).

Bastará para o efeito, a apresentação às autoridades aduaneiras de uma simples declaração na Fatura ou em qualquer outro documento comercial, que descreva o produto originário de uma forma suficientemente pormenorizada para permitir a sua identificação.

Esta competência atribuída aos produtores e operadores económicos que beneficiarão do Acordo, desmaterializa o rigoroso e burocrático modelo até aqui vigente, onde apesar de apresentados em suporte original, documentos de valor semelhante como os FORM A, ou CCMs (EUR-1), Certificados de Origem e outros documentos eventualmente exigíveis nos acordos preferenciais até agora existentes, são por vezes equacionados quanto à sua veracidade e sujeitos a controlos por dúvidas fundadas, das autoridades aduaneiras. Com o CETA, esta simplificação denota um ato de grande confiança nos *players* e um arrojado passo no enquadramento económico.

5. AS CRÍTICAS E DIFICULDADES À IMPLEMENTAÇÃO DO ACORDO CETA

Apesar das vantagens apontadas pela Comissão ao Acordo CETA, este não passou ao lado de fortes críticas, sobretudo por falta de discussão e transparência do processo negocial. Veja-se, por exemplo, as preocupações manifestadas pelo Tribunal Constitucional da Alemanha, transcritas neste excerto:⁵

Foram cinco – duas das quais, em conjunto, subscritas por mais de 200.000 cidadãos – as queixas de inconstitucionalidade da aplicação provisória do acordo de livre comércio entre a UE e o Canadá (CETA) que foram ontem rejeitadas pelo Tribunal Constitucional de Karlsruhe – embora impondo condições. E qual a justificação para esta decisão? Os oito juízes constitucionais consideraram que o bloqueio do CETA, mesmo que temporário, iria interferir substancialmente na ampla “liberdade do governo na definição da política externa e económica”, bem como nas relações externas da UE. Os previsíveis danos no que concerne à fiabilidade da Alemanha e da UE iriam, a longo prazo, limitar a capacidade de manobra e de decisão de todos os atores europeus na configuração das relações comerciais globais.

Mesmo a nível da União Europeia o assunto não foi consensual. A Comissão de Ambiente e Saúde Pública do Parlamento Europeu manifestou reservas ao Acordo CETA, admitindo que este poderia ser prejudicial para os objectivos da UE no que concerne ao ambiente e à saúde pública. Várias matérias foram apontadas como sensíveis, entre as quais se destacam: as substâncias químicas desreguladoras do sistema endócrino; a legislação REACH⁶; a exploração mineira; a agricultura; os Organismos Geneticamente Modificados; o uso de hormonas de crescimento.

Recentemente, em outubro, o CETA esteve perto de cair por terra por causa da oposição do governo regional belga da Valónia. Nessa altura, o Governo e Parlamento da região francófona da Bélgica declinavam a parceria por considerarem ‘pouco democrática’ a forma como decorreram as negociações e era dito. “Nós não somos Astérix, não temos a poção mágica mas temos a força das nossas convicções”, declarava o presidente do Parlamento da Valónia, André Antoine, para explicar a determinação da região francófona da Bélgica em não ratificar o tratado geral de economia e comércio entre a União Europeia (UE) e o Canadá, cuja assinatura estava prevista para o dia seguinte em Bruxelas.

A este propósito, Alexander Saeedy, na *Foreign Affairs*, observou que a batalha política em torno do livre comércio não decorreu como de costume, numa mesa de conferências, numa reunião do G20, ou nos protestos populares de rua. Por sua vez, Wolfgang Münchau, num artigo *Financial Times*, escreveu que rejeição inicial da Valónia ao CETA “anuncia um período de desintegração da EU”. Ao nível da Comissão, Cecilia Malmström, advertiu que se a UE não podia facilmente concordar com um acordo comercial com um parceiro como o Canadá, era improvável que um

5 - <https://aventar.eu/2016/10/14/o-ceta-no-tribunal-constitucional/>

6 - Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) is a European Union regulation dated 18 December 2006 - O Regulamento (CE) n.º 1907/2006, relativo ao registo, avaliação, autorização e restrição dos produtos químicos (Regulamento REACH).

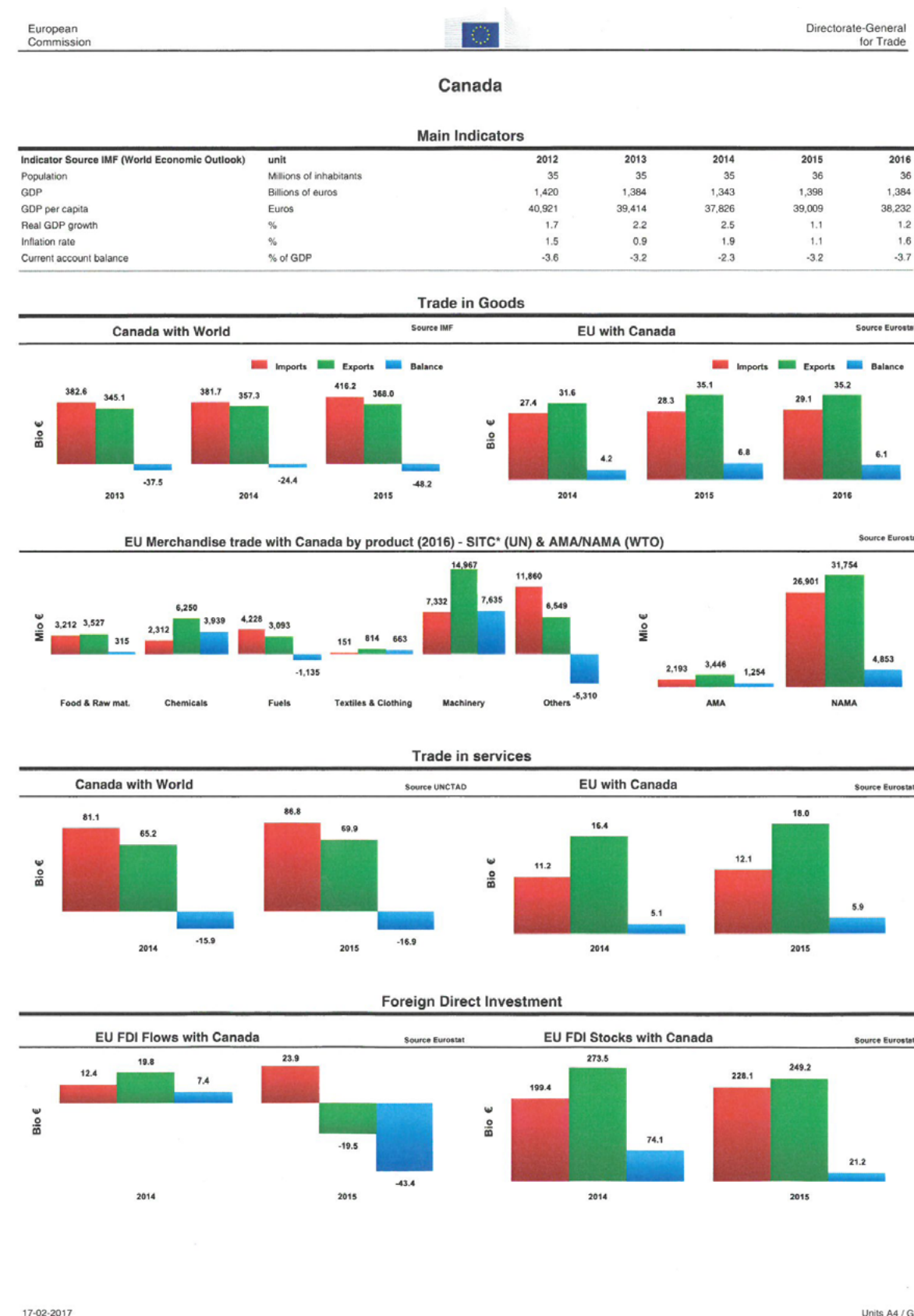
acordo de comércio bem sucedido com o Reino Unido após *Brexit*¹. Apesar de tudo, o acordo com o Canadá acabou por ser assinado, tendo sido possível ultrapassar as reservas da Valónia que obstaculizavam à sua assinatura pela Bélgica. Todavia, isto não significa que as dificuldades acabaram. Em Fevereiro de 2017 será discutido no Parlamento Europeu, que também terá de dar o seu consentimento. E depois há ainda a questão da ratificação por todos os Estados-Membros da União Europeia.

REFLEXÕES FINAIS

A Comissão Europeia negociou o Acordo Económico e Comercial Global (CETA) com o objetivo de estabelecer uma relação económica aprofundada e privilegiada com o Canadá. O Canadá é um parceiro tradicional e importante da União Europeia. Os europeus partilham com este Estado uma longa história, assente em valores e interesses comuns. O Acordo CETA pretende criar novas possibilidades de comércio e investimento entre a União Europeia e o Canadá, através de um melhor acesso das mercadorias e dos serviços ao mercado, do reforço das regras em matéria de trocas comerciais, investimentos e vantagens económicas comuns para os operadores económicos.

Como ocorre com todos os acordos de comércio ambiciosos, a liberalização do comércio nunca é totalmente consensual. Pelos dados da Comissão Europeia, perspetivam-se ganhos gerais para a economia e consumidores. Todavia, isso não significa que não possa haver também alguns impactos negativos sectoriais e perdedores, mesmo que em número reduzido. As dificuldades existem também no plano político e jurídico. O texto do acordo prevê, no nº 2 do artigo 30.7 que “entrará em vigor no primeiro dia do segundo mês seguinte à data em que as Partes trocarem notificações escritas certificando que cumpriram os respectivos requisitos e procedimentos internos ou em qualquer outra data que as Partes acordarem”. Mas o acordo foi considerado de natureza mista, exigindo por isso a sua ratificação por parte dos parlamentos nacionais. No atual clima de ceticismo face à União Europeia esta poderá ser uma tarefa difícil.

Comércio de mercadorias – Canadá e o resto do Mundo e União Europeia e o Canadá



1 - A saída do Reino Unido da União Europeia (UE) — apelidada de *Brexit* -, palavra originada na língua inglesa e resultante da fusão dos termos *Britain* (Grã-Bretanha) e *exit* (saída).

Fonte: Eurostat

Indicadores comerciais entre o Canadá e o resto do Mundo e entre a União Europeia e o Canadá

Canada Merchandise trade with World							
Indicator	unit	2012	2013	2014	2015	2016	Annual average growth
imports	Billions of euros	395.9	382.6	381.7	416.2		1.7
exports	Billions of euros	354.3	345.1	357.3	368.0		1.3
balance	Billions of euros	-41.6	-37.5	-24.4	-48.2		

EU Merchandise trade with Canada							
Indicator	unit	2012	2013	2014	2015	2016	Annual average growth
imports	Billions of euros	30.3	27.2	27.4	28.3	29.1	-1.0
exports	Billions of euros	31.4	31.6	31.6	35.1	35.2	2.9
balance	Billions of euros	1.1	4.3	4.2	6.8	6.1	

EU Merchandise trade with Canada by product - SITC (UN, WTO/ITS) & AMA/NAMA (WTO) breakdowns							
Indicator	unit	2012	2013	2014	2015	2016	Annual average growth
Agricultural Products (AMA/WTO)							
imports	Millions of euros	1,844	1,923	2,250	2,237	2,193	4.4
exports	Millions of euros	2,854	3,001	3,131	3,419	3,446	4.8
balance	Millions of euros	1,010	1,078	881	1,181	1,254	
Non-Agricultural Products (NAMA/WTO)							
imports	Millions of euros	28,448	25,319	25,183	26,076	26,901	-1.4
exports	Millions of euros	28,553	28,590	28,513	31,725	31,754	2.7
balance	Millions of euros	105	3,271	3,330	5,649	4,853	
Food and raw materials							
imports	Millions of euros	2,898	3,020	3,222	3,350	3,212	2.6
exports	Millions of euros	2,918	3,035	3,156	3,452	3,527	4.9
balance	Millions of euros	20	15	-66	102	315	
Fuels							
imports	Millions of euros	6,081	6,263	5,992	4,215	4,228	-8.7
exports	Millions of euros	2,678	2,890	2,630	2,654	3,093	3.7
balance	Millions of euros	-3,403	-3,373	-3,362	-1,561	-1,135	
Chemicals							
imports	Millions of euros	2,738	2,575	2,374	2,382	2,312	-4.1
exports	Millions of euros	5,695	5,939	5,490	6,045	6,250	2.4
balance	Millions of euros	2,957	3,364	3,115	3,662	3,939	
Machinery							
imports	Millions of euros	5,304	5,050	5,667	6,640	7,332	8.4
exports	Millions of euros	12,756	12,623	13,239	15,426	14,967	4.1
balance	Millions of euros	7,452	7,573	7,572	8,785	7,635	
Textiles and clothing							
imports	Millions of euros	131	131	134	142	151	3.7
exports	Millions of euros	627	632	661	766	814	6.8
balance	Millions of euros	496	501	526	623	663	
Others							
imports	Millions of euros	13,141	10,203	10,043	11,583	11,860	-2.5
exports	Millions of euros	6,734	6,472	6,469	6,802	6,549	-0.7
balance	Millions of euros	-6,408	-3,731	-3,574	-4,781	-5,310	

Canada Trade in services with World							
Indicator	unit	2012	2013	2014	2015	2016	Annual average growth
imports	Billions of euros	87.1	84.8	81.1	86.8		-0.1
exports	Billions of euros	69.5	67.9	65.2	69.9		0.2
balance	Billions of euros	-17.6	-16.9	-15.9	-16.9		

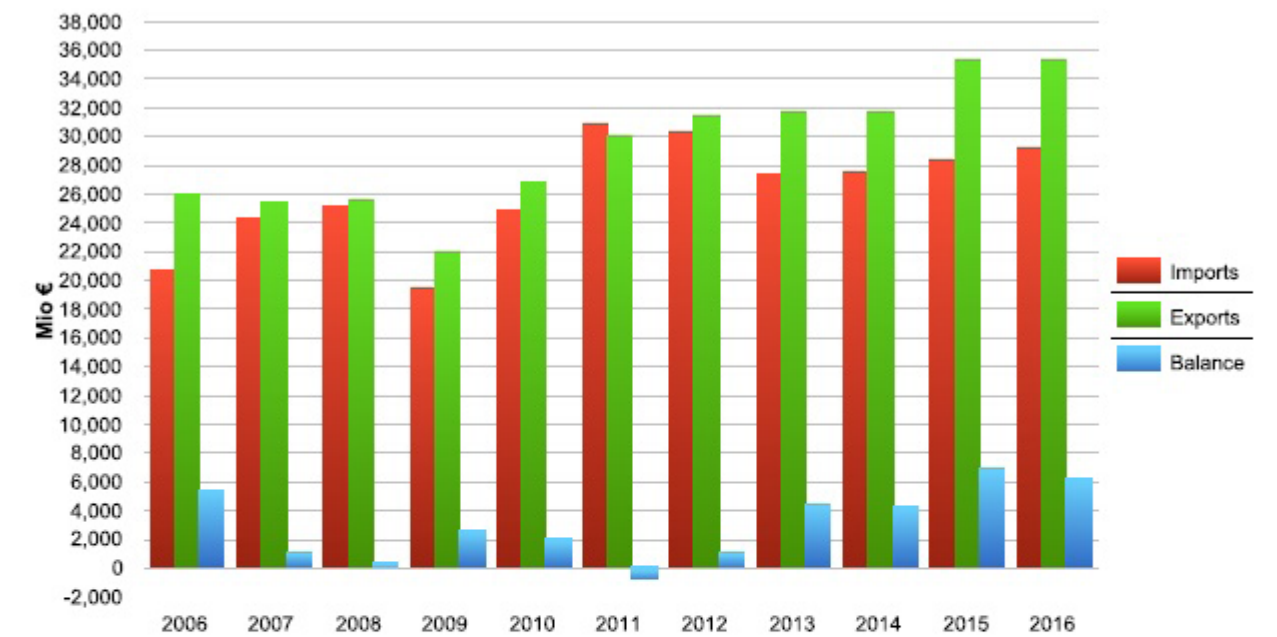
EU Trade in services with Canada							
Indicator	unit	2012	2013	2014	2015	2016	Annual average growth
imports	Billions of euros	11.6	11.6	11.2	12.1		1.2
exports	Billions of euros	17.4	17.7	16.4	18.0		1.2
balance	Billions of euros	5.7	6.0	5.1	5.9		

EU Foreign direct investment with Canada							
Indicator	unit	2012	2013	2014	2015	2016	Annual average growth
stocks: inward	Billions of euros		131.4	199.4	228.1		31.7
stocks: outward	Billions of euros		227.5	273.5	249.2		4.7
stocks: balance	Billions of euros		96.1	74.1	21.2		
flows: in	Billions of euros		16.2	12.4	23.9		21.4
flows: out	Billions of euros		14.2	19.8	-19.5		
flows: balance	Billions of euros		-2.0	7.4	-43.4		

Fonte: Eurostat

Balança comercial entre a União Europeia e o Canadá de 2005 a 2015

European Union, Trade with Canada
Total goods: EU Trade flows and balance, annual data 2006 - 2016
Source Eurostat Comext - Statistical regime 4



Total goods: EU Trade flows and balance
Source Eurostat Comext - Statistical regime 4

Period	Imports			Exports			Balance Value Mio €	Total trade Value Mio €
	Value Mio €	% Growth*	% Extra-EU	Value Mio €	% Growth*	% Extra-EU		
2006	20,616		1.5	26,008		2.3	5,389	46,622
2007	24,244	17.6	1.7	25,384	-2.4	2.1	1,139	49,628
2008	25,105	3.6	1.6	25,488	0.4	1.9	383	50,593
2009	19,361	-22.9	1.6	21,945	-13.9	2.0	2,584	41,306
2010	24,770	27.9	1.6	28,780	22.0	2.0	2,011	51,550
2011	30,730	24.1	1.8	29,891	11.6	1.9	-839	60,621
2012	30,293	-1.4	1.7	31,407	5.1	1.9	1,115	61,700
2013	27,242	-10.1	1.6	31,591	0.6	1.8	4,349	58,834
2014	27,433	0.7	1.6	31,844	0.2	1.9	4,211	59,077
2015	28,314	3.2	1.6	35,144	11.1	2.0	6,830	63,458
2016	29,094	2.6	1.7	35,200	0.2	2.0	6,106	64,294

* Growth: relative variation between current and previous period
% Extra-EU: imports/exports as % of all EU partners i.e. excluding trade between EU Member States

Fonte: Eurostat

Identificação dos Capítulos do Sistema Harmonizado nas trocas entre a União Europeia e o Canadá entre 2011 e 2015

European Union, Trade with Canada

Trade flows by HS section 2016

Source Eurostat Comext - Statistical regime 4

HS Sections	Imports				Exports			
	Value Mio €	% Total	% Extra-EU	% Growth*	Value Mio €	% Total	% Extra-EU	% Growth*
Total	29,094	100.0	1.7	2.8	35,200	100.0	2.0	0.2
I Live animals; animal products	319	1.1	1.2	-0.6	348	1.0	1.3	23.9
II Vegetable products	1,712	5.9	3.3	-2.1	381	1.1	1.5	-5.1
III Animal or vegetable fats and oils	25	0.1	0.3	76.2	152	0.4	2.7	27.8
IV Foodstuffs, beverages, tobacco	533	1.8	1.2	-16.6	2,431	6.9	3.4	2.6
V Mineral products	3,311	11.4	1.2	9.7	2,453	7.0	3.1	11.7
VI Products of the chemical or allied industries	2,166	7.4	1.3	-3.3	5,898	16.8	2.1	2.8
VII Plastics, rubber and articles thereof	284	1.0	0.5	-1.1	887	2.5	1.3	5.3
VIII Raw hides and skins, and saddlery	66	0.2	0.4	-5.5	339	1.0	2.2	-12.6
IX Wood, charcoal and cork and articles thereof	430	1.5	3.5	2.8	209	0.6	1.7	20.9
X Pulp of wood, paper and paperboard	480	1.7	3.1	-2.2	406	1.2	1.4	-2.0
XI Textiles and textile articles	144	0.5	0.1	7.5	801	2.3	1.8	6.0
XII Footwear, hats and other headgear	11	0.0	0.0	13.7	261	0.7	2.8	4.6
XIII Articles of stone, glass and ceramics	50	0.2	0.4	5.5	461	1.3	2.3	0.4
XIV Pearls, precious metals and articles thereof	9,335	32.1	10.0	7.1	488	1.4	0.9	80.6
XV Base metals and articles thereof	1,198	4.1	1.2	-18.3	1,801	5.1	1.9	-12.2
XVI Machinery and appliances	3,970	13.6	1.0	-1.4	8,302	23.6	1.8	-4.2
XVII Transport equipment	3,329	11.4	2.5	28.4	6,600	18.8	2.3	-1.5
XVIII Optical and photographic instruments, etc.	850	2.9	1.2	-5.4	1,417	4.0	1.5	-5.2
XIX Arms and ammunition	14	0.0	1.3	-29.0	28	0.1	0.7	-24.6
XX Miscellaneous manufactured articles	151	0.5	0.3	-19.9	619	1.8	2.0	8.9
XXI Works of art and antiques	50	0.2	1.3	15.0	57	0.2	0.6	-36.9
XXII Not classified	664	2.3	3.6	-27.7	860	2.4	3.1	-2.6
AMA / NAMA Product Groups								
Total	29,094	100.0	1.7	2.8	35,200	100.0	2.0	0.2
Agricultural products (WTO AoA)	2,193	7.5	0.1	-2.0	3,446	9.8	0.2	0.8
Fishery products	450	1.5	0.0	-18.3	88	0.3	0.0	38.8
Industrial products	26,451	90.9	1.6	3.6	31,665	90.0	1.8	0.0

% Growth: relative variation between current and previous period

% Total: Share in Total: Total defined as all products

% Extra-EU: imports/exports as % of all EU partners i.e. excluding trade between EU Member States

Fonte: Eurostat

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O PAPEL DA IATA NO TRANSPORTE AÉREO

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RESUMO

Desde a sua fundação em Havana, no ano de 1945, que a IATA assumiu um papel fundamental na representação das companhias aéreas a nível mundial e na promoção de um serviço aéreo cada vez mais seguro, económico e sustentável. A uniformização dos procedimentos técnicos e legais, a cooperação entre as companhias aéreas e a criação de sistemas de gestão de facturação e pagamentos têm sido as principais medidas implementadas, com grande sucesso, pela IATA, principalmente tendo em conta o aumento exponencial que o transporte aéreo evidenciou desde a sua invenção até aos dias de hoje. A IATA representa actualmente 265 companhias aéreas em todo o mundo, companhias essas que representam cerca de 83% do tráfego aéreo mundial, o que demonstra a influência que esta organização não-governamental exerce no transporte aéreo, quer a nível de passageiros, quer a nível de mercadorias.

PALAVRAS-CHAVE

Aviação, IATA, Transporte Aéreo

ABSTRACT

Since its foundation in Havana, in 1945, IATA has played a key role in representing airlines worldwide and in promoting an increasingly safe, economical and sustainable air service. Standardization of technical and legal procedures, cooperation between airlines and the creation of billing and payment management systems have been the main measures implemented with great success by IATA, especially in view of the exponential increase in air transport since its creation to today. IATA currently represents 265 airlines worldwide, which represent about 83% of the world's air traffic, demonstrating the influence of this non-governmental organization exerts in the air transportation of both passengers and goods.

KEYWORDS

Aviation, IATA, Air Transport

LISTA DE SIGLAS E ACRÓNIMOS

- IATA - International Air Transport Association
- ICAO – International Civil Aviation Organization
- BSP - Billing and Settlement Plan
- CASS - Cargo Accounts Settlement System
- FAA – Federal Aviation Administration

A FUNDAÇÃO DA IATA

É seguro dizer que a evolução do Transporte Aéreo se deveu, numa primeira fase, às duas Grandes Guerras Mundiais, principalmente na importância que estas assumiram em dois aspectos: o transporte aéreo tático (com a deslocação de pessoal e recursos mais rapidamente para os cenários de Guerra) como também no bombardeamento estratégico (de forma a destruir pontos estratégicos da linha inimiga).

É também em pleno cenário de guerra que é fundada a IATA, em Abril de 1945 na capital cubana, Havana. Na altura era composta por 57 companhias aéreas de 31 países (a sua maioria Europeias e Norte Americanas)¹. Desde cedo a IATA definiu como principais objectivos promover a segurança no transporte aéreo para todos os agentes envolvidos, identificar e estudar todos os problemas associados ao transporte aéreo, disponibilizando os meios necessários a todas as empresas envolvidas, directa ou indirectamente, com o serviço de transporte aéreo e finalmente cooperar com a recém criada ICAO (agência da ONU, especializada em Aviação Civil, que teve a sua génese na Convenção de Chicago em 1944) e outras organizações internacionais relacionadas com a aviação civil.

O transporte aéreo cresceu regularmente à escala de dois dígitos desde 1945 até à primeira crise do petróleo em 1973. Muito deste crescimento se deveu às inovações tecnológicas introduzidas nos aviões. Desde a introdução de navas de turbo-hélice no início dos anos 50 até o aparecimento dos primeiros aviões transatlânticos em 1958 passando pela entrada em circulação dos aviões de fuselagem larga e os motores “*High Bypass*”, que conhecemos ainda nos dias de hoje, no início dos anos 70. Todos estes avanços tecnológicos aliados ao aumento de poder de compra e maior tempo livre disponível por parte das populações originaram uma autêntica explosão na procura de viagens aéreas². A verdade é que poucas indústrias conseguem, nos dias de hoje, igualar este dinamismo de crescimento que não seria igual sem a standardização de práticas e procedimentos introduzidos pela IATA ao longo do tempo.

O IMPACTO DO 11 DE SETEMBRO NO TRANSPORTE AÉREO – O PAPEL DA IATA

O 11 de Setembro foi, sem dúvida, um dos acontecimentos mais marcantes da última década, não só a nível geopolítico, mas também no panorama do transporte aéreo internacional. A partir desse dia, a segurança passou a ser a palavra chave em todos os procedimentos. O que aconteceu efectivamente? No ano em que se completam 15 anos dos atentados, a IATA lançou um estudo acerca do impacto deste acontecimento na indústria. Segue-se então uma pequena análise aos números mais relevantes que compõe este estudo e uma breve análise às medidas de segurança implementadas.

O tráfego de passageiros nos Estados Unidos (medidos pela formula número de passageiros x número de quilómetros viajados) baixou em 5,9% em 2001, comparando com o ano 2000 e voltou a descer em 1,4% em 2002. As companhias aéreas, de forma a contrariar estes números, diminuíram a capacidade dos aviões em 2,8% em 2001 e 3,9% em 2002. Foi a primeira vez desde a II Guerra Mundial que a capacidade foi diminuída em dois anos consecutivos. Após estabilizar em 2003 o tráfego aumentou gradualmente até 2009 onde voltou a estagnar devido aos preços do petróleo e à crise financeira global de 2010.

As receitas das companhias aéreas americanas caíram de 130,2 mil milhões de dólares em 2000 para 107,1 mil milhões de dólares em 2002. No total, entre os anos de 2001-2005 foram totalizados cerca de 57,7 mil milhões de dólares em perdas. As companhias aéreas voltaram aos lucros entre 2006-2007 (25,9 mil milhões de dolares) e novamente a cair devido à crise de 2008. 2010 foi o ano em que as companhias voltaram aos lucros, com valores a rondar os 3,6 mil milhões de dólares.

1 - A IATA sucedeu à International Air Traffic Association, fundada em 1919, em Den Haag (Haia) na Holanda que era composta, na sua formação, apenas por Companhias Aéreas Europeias.

2 - De acordo com o *IATA Annual Review 2016* o numero de passageiros passou de 9 milhões em 1945 para 3.545 milhões em 2015 o que representa o crescimento médio de cerca de 560% ao ano, de passageiros a utilizar o Transporte Aéreo num espaço de 70 anos.

Em termos de emprego no sector, o estudo revela que no ano 2000 as companhias aéreas americanas empregavam 520.600 trabalhadores. Em 2003 esse número desceu em 14,6% para 444.700 trabalhadores. Esse número continuou a descer até ao ano de 2010, onde se registavam 378.100 trabalhadores no sector, antes de haver uma subida dos números no final de 2011 para 382.900.

O tráfego global desceu em 2,7 % no ano de 2001 e não ultrapassou os níveis de 2000 até ao ano de 2003. Continuou a subir até 2009 até sofrer nova queda de 2,1%.

As companhias aéreas do resto do mundo perderam 13 mil milhões de dólares em 2001, tendo repetido o mesmo resultado em 2002. A indústria registou os primeiros lucros pós 11 de Setembro apenas em 2007 com valores a rondar os 14,7 mil milhões de dólares. Os anos seguintes inflacionados pelos preços do petróleo e a crise financeira mundial voltaram a empurrar os números para o vermelho, registando um total de 25,9 mil milhões de dólares em perdas.

Em termos de segurança foram, também, introduzidos novos procedimentos ao longo do tempo, dos quais se destacam:

- Setembro de 2001: logo após os atentados o Espaço Aéreo esteve fechado por 3 dias. A FAA expandiu a lista da ICAO de itens proibidos a bordo, concretamente ferramentas de casa e itens cortantes ou de ponta afiada. As portas de acesso ao cockpit foram reforçadas tendo sido também desenhadas, produzidas e instaladas novas portas;
- Dezembro de 2001: Nos Estados Unidos passou a ser obrigatório retirar o calçado e scanizar o mesmo em separado. Esta medida foi tomada noutros países embora não houvesse uma uniformização dos procedimentos. Isqueiros e fósforos foram temporariamente proibidos nas cabines;
- Novembro de 2003: A ICAO introduziu a obrigação da utilização de portas de *cockpit* reforçadas para todos os vôos com capacidade superior a 60 passageiros;
- Janeiro de 2004: Os Estados Unidos começaram a retirar as impressões digitais de todos os passageiros não americanos, com algumas excepções;
- Outubro de 2004: Máquinas de leitura de passaportes passaram a ser obrigatórias em todos os países que tinham o Programa de Isenção de Visto com os Estados Unidos. O Reino Unido começou a criar uma base de dados recolhendo os dados de cada passageiro;
- Agosto de 2006: Líquidos, aerossóis e gels em recipientes individuais de 100 ml passaram a ser retidos nos postos de segurança e todos os líquidos necessitaram de ser embalados em sacos de plástico transparente. Todos os equipamentos electrónicos passaram a ser retirados das bagagens e passaram também, a ser scanizados em separado;

O Gráfico 1, abaixo, demonstra o custo total das medidas de segurança implementadas nos dias de hoje. Tendo em conta que estas questões ultrapassam a indústria aérea, sendo questões de segurança nacional, estes custos são partilhados também com os governos de cada país:

Security Costs (billions)

- Passenger operations
- Cargo operations (incl. courier/mail)
- Airport
- Aircraft
- Employee
- Catering/stores
- Miscellaneous

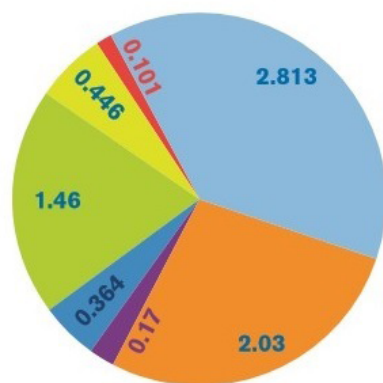


Gráfico 1 – Custos em Segurança

Fonte: *The Impact of September 11 2001 on Aviation (IATA)*

A IATA lançou também o projecto do *Checkpoint* do Futuro. Trata-se de um sistema que combina dois factores, a saber: a informação já recolhida do passageiro e sistemas de scan avançados que permitem a deteção de materiais explosivos ou potencialmente perigosos. Neste momento está em fase de concepção existindo já, em muitos aeroportos os sistemas e tecnologias necessárias para implementar este sistema de uma forma permanente.

O PRESENTE

A IATA, mesmo tratando-se de uma Organização Não-Governamental, procura inculcar a importância do transporte aéreo nos dias de hoje perante os Governos e Organizações Mundiais, tentando aumentar a consciência dos benefícios que esta indústria traz às economias locais e globais. Defende os interesses das companhias aéreas em todo o mundo desafiando regras e encargos desproporcionados lutando sempre por regulamentação mais sensata. Desde a sua fundação a IATA tem procurado desenvolver *standards* a nível comercial numa escala global com o objetivo de auxiliar as companhias aéreas a simplificar processos, aumentando a comodidade dos passageiros ao mesmo tempo que baixam os custos operacionais tornando-se companhias mais eficientes, apostando cada vez mais nas novas tecnologias.

A IATA auxilia as Companhias Aéreas a operarem de forma segura, eficiente e económica sobre regras claramente definidas. O apoio profissional é dado a todos os *stakeholders* que compõem esta Indústria oferecendo uma ampla variedade de serviços especializados especialmente a nível financeiro onde se podem destacar dois programas fundamentais na simplificação dos sistemas de pagamento entre agentes, um para passageiros (o BSP) e outro para mercadorias (o CASS).

O BSP é um sistema de facturação electrónica projectado para facilitar o fluxo de dados e recursos entre as agências de viagens e as companhias aéreas, através do portal *BSPlink*. A vantagem deste sistema é que permite a existência de uma organização neutra que funciona como intermediária ao invés das agências de viagens negociarem individualmente com cada companhia. Este sistema permite ainda uma uniformização e redução de custos e de trabalho com a emissão de bilhetes electrónicos, havendo um controlo e processamento de dados tratados informaticamente que geram relatórios e emitem alertas para os envolvidos nas situações de débito ou crédito.

Trata-se de um sistema verdadeiramente global. No final de 2015 haviam operações BSP em 180 países. O sistema atende actualmente 400 companhias aéreas participantes com uma taxa de liquidação, dentro do prazo, de 99,99%. Em 2015, o sistema BSP da IATA processou um valor total de 230,3 mil milhões de dólares.

O CASS é um sistema em tudo similar ao BSP, mas direccionado para os agentes de carga (transitários) e as companhias aéreas. É um sistema de facturação electrónica projectado para simplificar a cobrança e acerto de contas entre estas duas entidades tendo uma organização neutra a mediar o processo e que funciona através do portal *CASSlink*. Este sistema, sendo electrónico tem a grande vantagem de substituir as tradicionais facturas em papel eliminando os problemas inerentes à utilização deste suporte. Permite, tal como o BSP, uma taxa de sucesso no processo de facturação acima de 99%. De salientar também que não é necessário ser agente IATA para poder fazer parte do sistema CASS, o acesso é limitado pelo pagamento de uma taxa de adesão anual. Obviamente que os membros IATA beneficiam de condições de acesso mais favoráveis.

O sistema CASS serviu, no ano de 2015 as operações de facturação de mais de 500 entidades (entre companhias aéreas e transitários) tendo uma taxa de sucesso de 99,99% e movimentando um valor de 28,8 mil milhões de dólares.

O FUTURO DA AVIAÇÃO E A PREPONDERÂNCIA DA IATA

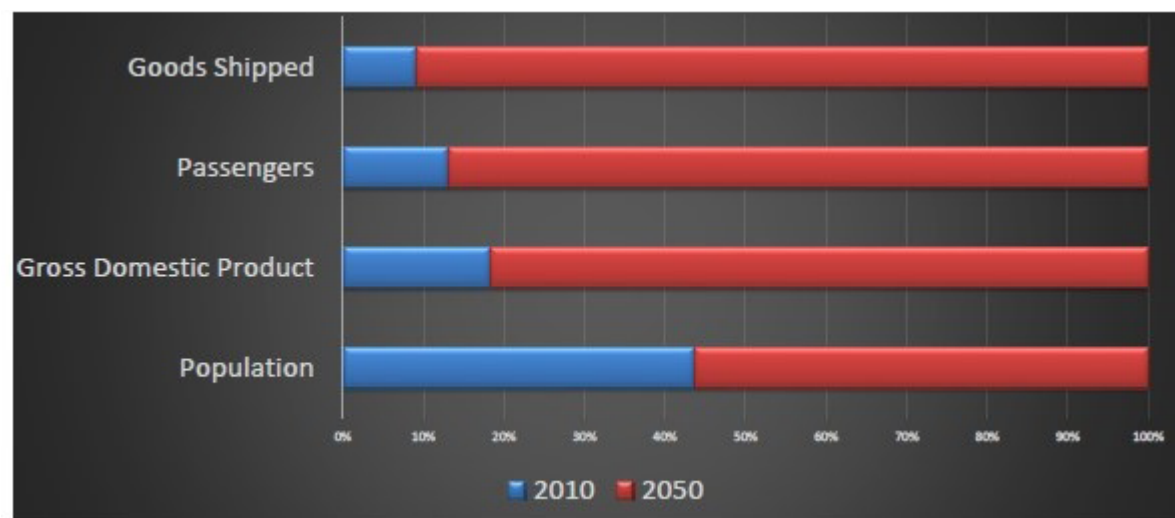
A IATA desafiou os líderes das maiores companhias aéreas mundiais a projectar o futuro do sector e a delinear os pilares fundamentais para o desenvolvimento da indústria nos próximos anos, tendo este projecto sido denominado “Visão 2050” onde são projectados os cenários do mundo no ano de 2050 e o papel do transporte aéreo nessa altura. Os principais temas abordados focam-se em quatro pilares segundo as previsões e que são os seguintes: a rentabilidade das companhias aéreas, as infraestruturas, os combustíveis e os clientes.

Em termos de rentabilidade, as principais políticas apontam para uma maior aposta na liberalização comercial do sector. A actual fragmentação do sector, com a existência de mais de 1.000 companhias aéreas em todo o Mundo transforma o negócio numa luta pela sobrevivência para grande parte das companhias. Os governos também deverão agir com responsabilidade para garantir segurança e condições de concorrência equitativas, as companhias aéreas necessitam também de liberdade para construir a eficiência além fronteiras e alcançar lucros sustentáveis;

As infraestruturas devem ser reformuladas em torno das necessidades das companhias aéreas que são o verdadeiro dinamismo da indústria. Criar uma cadeia de valor mais unida e uma gestão aeroportuária que possa trazer benefícios mútuos quer às Companhias Aéreas quer às próprias entidades que gerem os aeroportos, um pouco o que se passa actualmente com o Aeroporto do Porto e a atracção do negócio das companhias aéreas *low cost*.

A gestão do tráfego aéreo também deve mudar. O projecto Ceu Único Europeu poderá traduzir-se numa redução dos controladores aéreos e consequentemente o custo da operação. Poderá também permitir o redesenhar de rotas, diminuindo o tempo de viagem e consequentemente os custos operacionais dessas mesmas, aliviando, por outro lado, o congestionamento das vias aéreas que já se verifica, principalmente no Centro da Europa.

Gráfico 2 – Previsões de crescimento (IATA – Vision 2050)



Fonte: IATA 2050 Vision Report Assessment³

Quanto aos combustíveis, o *jetfuel* não será uma solução de longo prazo, sendo necessário começar a encontrar combustíveis alternativos, com os biocombustíveis como os potenciais substitutos do *jetfuel*, reduzindo em cerca de 80% a actual pegada de carbono da indústria e indo de encontro ao compromisso da IATA em reduzir para metade as emissões de carbono em 2050 comparando com os valores de 2005. No entanto é necessário um maior investimento para a implementação deste tipo combustível nos aviões;

Os clientes são a peça central da visão de futuro da IATA. Em 2050 estima-se que haverão cerca de 16 mil milhões de viajantes e serão movimentados 400 milhões de toneladas em carga. Em poucas décadas a classe média habilitada a viajar irá triplicar, em grande parte devido à população da Índia e da China. Acompanhar este crescimento será um desafio para todas as partes envolvidas na cadeia de valor. Para ligar todos estes clientes será necessário combinar os tres factores: preço x velocidade x qualidade da melhor forma. Com o passar dos anos o custo de voar tem decrescido, no entanto, as infraestruturas não tem acompanhado o crescimento de viajantes e o aumento dos procedimentos de segurança criou dificuldades e gerou atrasos, será necessário agilizar esses mesmos procedimentos;

No geral existirão vários desafios que a Indústria Aérea terá de superar, no entanto, a IATA está a acompanhar a evolução da aviação, projectando sempre novas metas a curto prazo de forma a contribuir para um crescimento sustentável do Transporte Aéreo.

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³ - Gráfico retirado do link <http://commons.erau.edu/cgi/viewcontent.cgi?article=1176&context=aircon> (Embry-Riddle Aeronautical University)

LEAN PRODUCTION – APPLICATION TO WAREHOUSES

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ABSTRACT

Lean manufacturing includes several best practices and processes which optimize resources to produce high quality products quickly and efficiently at a low cost and warehousing has as its first role the storage of goods that can be defined as the assignment of goods in a selected location. Lean philosophy applied to warehouses generates value for the company and for its customers. Lean projects should be implemented as part of a comprehensive companywide initiative and it should be a pervasive and permanent culture, not a limited-time project that works for everybody at every level.

The purpose of this paper is to investigate the application to the warehouse management and organization of lean production techniques, objectives and goals. The paper is based on a review of journal articles and books literature on lean production.

KEYWORDS

Lean production, agile production, total quality management

Paper type

Conceptual paper

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1. INTRODUCTION

To define lean production or manufacturing it requires that we examine first its historical background, evolution and identify the different perspectives. It all started around 1927 when Henry Ford outlines his production philosophy and the basic principles that support the revolutionary Ford Production System (FPS) (Shah and Ward, 2007).

In 1937, Toyoda cousins Kiichiro and Eiji with Taiichi Ohno study the FPS and perfect the principle concepts and tools constituting the Toyota Production System (TPS) and Just-In-Time (JIT) production method is a key component of the TPS. Lean production descended from the Toyota Production System, based on the experiments developed by Taiichi Ohno over three decades in the Toyota Motor Company that formerly arrived in the United States in 1984, when the New United Motor Facturing, Inc. (NUMMI) plant was founded in a joint venture made between Toyota and General Motors Corporation.

This approach has become an integral part of the manufacturing procedure in the United States over the last decades and its link is the superior performance and its ability to provide competitive advantage to organizations. These goals are well accepted among academics and practitioners (Wood *et al.*, 2004).

As organizations attempt to transform themselves to compete successful in the future, they are turning to a variety of improvement initiatives: Total quality management, Just-in-time (JIT) production and distribution systems, Time-based competition, Lean production / Lean enterprise, Building customer-focused organizations, Activity-based cost management, Employee empowerment, Reengineering.

Each of these improvement programs has had demonstrated success stories, each competes for the time, energy, and resources of senior executives. And each offers the promise of breakthrough performance and enhanced value creation for many of a company's community: shareholders, customers, suppliers and employees (Kaplan and Norton, 1996).

In this paper we will define lean production and after we will focus the application of the lean production philosophy to the warehouses.

2. LEAN PRODUCTION – LITERATURE REVIEW

Defining lean production is a challenging task mainly due to the fact that it is not clear the conceptual and the operational space that encompasses lean production and there is a set of operational measures that can be used to define it. The term “lean”, created by John Krafcik (Russel, 2009), refers to using less of everything during production – less labor, less manufacturing space, less equipment, less inventory, and less engineering inputs during development and processing – all of which results in fewer defects and more variety. The lean production systems use the best advantage of handmade and mass production while reducing the costs and rigidity that are linked with each of these types of production. To accomplish this task, the lean methodology uses multi-skilled work teams and highly flexible increasingly automated machines. These measures lead to produce a large variety of products in increasing volumes. On the other hand we can say that lean manufacturing is not an extension of traditional thinking or techniques and that lean is neither an instant transition nor is it an extension of traditional thinking or techniques but rather a revolutionary thought process that requires abandonment of some old paradigms. Another point of view is that lean manufacturing is an increase of other manufacturing processes which precede lean and contend that lean manufacturing's origins can be traced back to Japan and their use of just-in-time production in the 1930's (Russel, 2009).

More precisely, lean manufacturing includes several best practices and processes which optimize resources to produce high quality products quickly and efficiently at a low cost (Filho and Fernandes, 2004). This philosophy uses a systematic approach to identify continuous improvement, pull production, pursuit of perfection, a set of initiatives

focused on eliminating all waste in production processes, a business system for organizing and managing operations that requires less human effort, space, capital and time to make products with fewer defects, a mechanism in which complex production processes can be organized to increase the flow of materials and reduce waste. The philosophy has a process with four stages that includes the definition of customer value, definition of the value stream, making flow by pulling from the customer, and effort for excellence.

The main idea of Toyota Production System is to produce the kind of units needed, at the time needed and in the quantities needed such that product inventories (raw materials, production materials and finished material) can be reduced or eliminated. The goal of this tool is the cost reduction (waste elimination) and to achieve this goal there are three main stages set that are quantity control, quality assurance and respect for humanity. These goals are conquered through the following concepts: JIT, Autonomation, Flexible workforce, Empowerment of workers (Monden, 1983). TPS includes standardization of work, uninterrupted work flows, direct links between suppliers and customers, and continuous improvement based on the scientific method. Lean production uses half the human effort in the factory, half the manufacturing space, half the investment in tools, half the engineering hours to develop a new product in half the time. It requires keeping half the needed inventory, results in many fewer defects, and produces a greater and ever growing variety of products (Womack *et al.*, 1990). Lean Production is an integrated system that joins production of goods or services with minimal middle costs.

Lean philosophy uses standard techniques such as visual communication of information, process mapping, process control, and identification and elimination of defects. Some of the best-known lean tools and techniques include value-stream mapping (a diagram of the material and information flows required to bring a product from order to delivery); just-in-time production; the “5 Ss” (five principles of an organized workplace); work leveling (ensuring consistent type and quantity of work over a period of time to avoid batching and backlogs); *kaizen* (continuous improvement) and Plan-Do-Check-Act (an improvement cycle that consists of proposing a process change, implementing the change, measuring the results, and taking appropriate action)

Holweg (2007) mapped out the key events and major publications: (next page)

In order to give the historical background and point out the processes definitions we will mark the critical phases in the lean production evolution and after we will map the conceptual definitions, except Lean manufacturing and Toyota Production System that were already highlighted above (Shah and Ward, 2007 use this approach).

CRITICAL PHASES

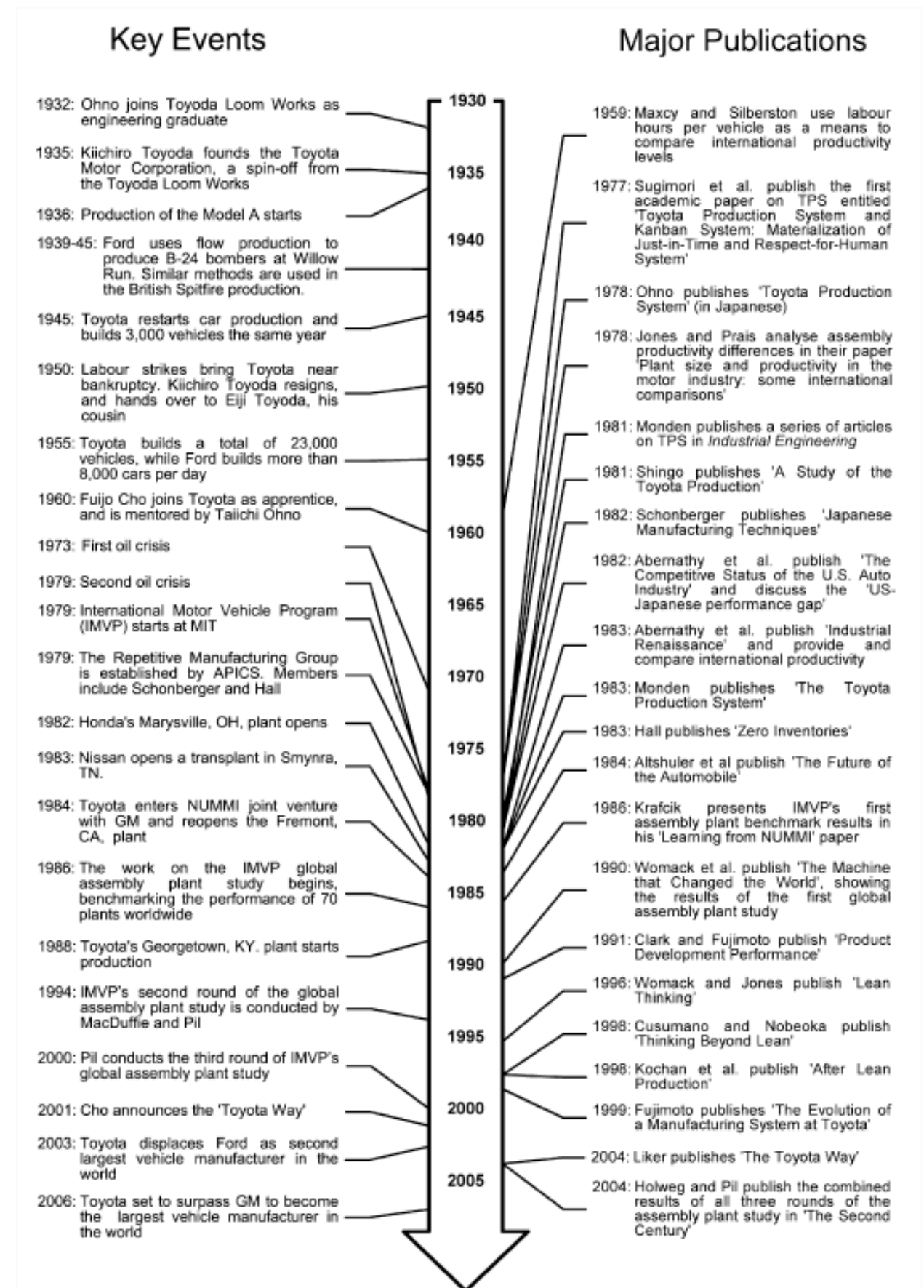
1927 and before:

Henry Ford outlines his production philosophy and the basic principles underlying the revolutionary Ford Production System (FPS) in “Today and tomorrow” in 1927.

1945 - 78 Progress in Japan:

1937 - Toyoda (later Toyota) Motor Company is established in Koromo, Japan. Toyoda cousins Kiichiro and Eiji, with Taiichi Ohno study FPS and perfect the principle concepts and tools constituting Toyota Production System (TPS). Just in time (JIT) production method is a key component of TPS.

1978 – Taiichi Ohno publishes “Toyota Production System” in Japanese. He recognizes Ford Production System and the American supermarket as the origin of his just in time thinking. According to Ohno, the primary goal of Toyota Production System is cost reduction (waste elimination), it can be achieved through quantity control, quality assurance, and respect for humanity. Ohno recommends that we should produce only the kind of units needed, at the time needed and in the quantities needed.



1973 - 88 Toyota Production System arrives in North America

1973 - Oil crisis in the world especially in North America. It generates immense interest in the Japanese manufacturing and management practices followed by publication of numerous academic and practitioner books and articles.

1977 - First academic article in the Lean Manufacturing field is published by Sugimori *et al.*, “Toyota Production System and Kanban System Materialization of Just-in-Time and Respect-for-Human System” in the International Journal of Production Research; focused articles on topics such as Kanban and Just-In-Time production; academic articles focused in production smoothing and level loading appear and they are made by Yasuhiro Monden.

1984 - NUMMI, a joint venture between Toyota Motor Company and General Motors opens a plant in California. Middle 1980 - Relevant books are published including Monden’s Toyota Production System (1983); Ohno’s Toyota Production System: Beyond large-scale production (1988) is published in English. The understanding of TPS is detached and its constituent elements; equivalence between JIT production, kanban and TPS is suggested.

1988 - 2000 Academic progress

1988 - Krafcik creates the term “lean” to describe the manufacturing system used by Toyota.

1990 – The book “The machine that changed the world” written by James Womack, Daniel Jones and Daniel Roos is published. The book establishes “lean production” to characterize Toyota’s production system including its underlying components in the popular dictionary. The book describes a lean system in detail but does not offer a specific definition.

Middle 1990 - Articles related to measuring Just-In-Time, Total Quality Management, their interrelationships and the impact of other organizational variables on their implementation are published in the academic journals.

1994 – The book “Lean Thinking” by James Womack and Daniel Jones is published. The book extends the guiding principles and philosophy subject to lean at a company level.

2000 - Present

Several books and articles written by practitioners and consultants and a few academic conceptual and empirical articles highlighting the in-depth nature of lean production are published. The definition of Lean is still not clear and specific.

2006 – Toyota Motor Company will become the number one automobile manufacturer in North America.

CONCEPTUAL DEFINITIONS

JIT – Just-In-Time

Just-In-Time philosophy has only the necessary products, at the necessary time, in the necessary quantity (Taylor, 2001). Kanban system, production smoothing and setup time reduction are critical components of any JIT system (Monden, 1981). JIT philosophy is associated with three criteria’s: JIT manufacturing techniques, total quality management and people involvement and empowerment. Programs associated with JIT include elimination of waste, full utilization of people, equipment, materials and parts (Davy *et al.*, 1992). JIT is an approach to continuous manufacturing improvement and its main concern is the waste elimination in the manufacturing process. In this philosophy, elimination of waste is achieved through the simplification of the manufacturing processes, such as reduction or elimination of excess inventories and large lot sizes, which usually cause unnecessary long cycle times of production and deliveries to final costumers (Flynn *et al.*, 1995). The main idea behind JIT is composed by three main concepts: flow, quality and employee empowerment.

TQM – Total Quality Management

Total Quality Management (TQM) is an management philosophy and set of practices that stresses continuous improvement meeting customer requirements and for that we must reduce rework, long term thinking, increase employee empowerment and teamwork, process redesign, competitive benchmarking, team-based problem solving, constant measurement of results and closer relationships with suppliers and customers (Ross, 1993).

TQM is an approach to improving the quality of goods and services through continuous improvement of all process, customer driven quality, production without defects, focus on improvement of processes and data driven decision making (Flynn *et al.*, 1994).

Continuous Improvement

Continuous improvement is a philosophy that must be adopted by the entire organization. Management must support both the continuous improvement effort and the people who engage in the effort on a daily basis. Employees must buy into the philosophy as they are critical to identifying areas for necessary improvements, suggesting what improvements should be made, and implementing necessary improvements.. Continuously solving root problems drives organizational learning which results in higher quality, lower costs, shorter lead times, improved safety, and better employee morale.

Elimination of Waste

Elimination of waste is central to lean production. For the Japanese flexibility became a key factor for production a large variety of vehicles using scarce resources and limited workforce (Sugimori *et al.*, 1977). This key factor led to the discovery that shorter lead times and flexible production lines lead to higher quality, better customer responsiveness, better productivity, and better utilization of capacity and equipment. As a result, the waste is eliminated and Toyota is able to give customers what they want, when they want it, at the right price, with the highest quality.

After mapping the critical phases and the conceptual definitions, now we will focus the differences between TQM and lean production. To highlight these differences, we will use the work made by Hackman and Wageman (1995) in three vectors (basic assumptions, change principles, interventions):

Basic assumptions

We will start the assumption with quality and this term do not receive the same attention in lean philosophy as it receives in the TQM, on the lean philosophy the main focus is the just-in-time (JIT) production. JIT has the goal to decrease total cost and emphasize the problems. In order to achieve this goal we must reduce the resources in the system, so that buffers do not cover up the problems that may arise. In the short run, the reduction of resources has as result a direct reduction of cost and in the long term, the reduction and elimination of buffers will emphasize the problems that exist in production, so they will become an important source of continuous improvement (Ohno, 1988). Several authors say that the purpose of lean is waste elimination although the literature points out that waste elimination is an important aspect of the concept. Reducing waste is also an important part of TQM, but under the flag of poor-quality-costs. A major difference between TQM and lean in this aspect is the precision in defining waste. For the most of lean literature, waste is based on the seven forms defined by Ohno (1988), whereas TQM has a very general definition of poor-quality-costs, including everything that could be eliminated through improvement.

Another issue related with quality, is that, this is the responsibility of senior management. Lean and TQM share this concept, but with some differences. In TQM managers should create structures that support the employees in producing products of high quality. In lean the rationale for doing this seems to be centered around eliminating the human factor from the system through Jidoka (don’t pass defects downstream, prevent defects by preventing errors, etc.), and Poka Yoke (smart automation as tools necessary to achieve the principle) (Pettersen, 2009).

Regarding the employees and the quality of their work, the lean concept has a weak employee’s perspective. The proponents of lean production usually have a strong instrumental and managerial perspective, discussing employees in terms of components in the production system (Berggren, 1993). The lean literature suggests that employees cannot be trusted to produce good quality, so there is the need of removing the possibility of human error from the system.

What Lean and TQM have in common is seeing the organization as a system, just with a small difference in the concept. The focus of TQM is on the internal structure and integration of departments within the organization. The

focus of lean is a supply chain perspective, seeing the internal production operations as a part of a value stream from the sub-suppliers to the end customer (Jones and Womack, 2002).

Change principles

Regarding the learning and continuous improvement, the learning aspects are not emphasized as much in literature on lean, there is a clear focus on continuous improvement, which implies that some form of learning is required. TQM is focused on stimulating creativity and individual efforts for improvement, whereas lean places strong emphasis on the standardization of work and collective learning.

Management by fact is implicit in the description of lean practices, many of which are analytical tools designed to help to achieve JIT production. There is a slight difference between lean and TQM regarding this area, in TQM the analysis of variability is made through the use of statistical tools is a central concept. In lean, this is not seen as equally important. In fact, some authors argue against the use of statistical tools for analyzing production performance, recommending alternative tools such as increased inspection and visualization of problems.

Focus on processes is also an area to look. In the lean concept the term value stream is used. In TQM, the term process is usually used at a lower level of abstraction and is called sub-processes or activities. The conception that management should analyze and improve the processes and train the employees is also shared by the two philosophies.

Interventions

In the analysis of customer requirements, the customer focus is one of the main goals of TQM, where every improvement should be based on an investigation of the customer's requirements, whether the customer is internal or external. The lean concept does not emphasize customer interests; the purpose of lean is to please the customer, but methods for analyzing customer requirements are needed.

In the supplier partnerships field, they are seen as important in both lean and TQM. Both concepts stresses the point that long term partnerships should be made with suppliers and that improvements should be done in collaboration with them. Improvement teams and quality circles have a central role in much of the TQM literature, and can be put to use in problem solving or improvement activities. In the lean literature, improvement teams are explicitly discussed by just about half of the authors. However, they are often implicated in discussions about improvement activities.

Scientific methods for performance measurement and improvement in TQM and lean are employed, various scientific methods for analysis and evaluation of performance. These methods differ significantly and the tools associated with one concept are generally not mentioned on the other one. The purpose of measurements also differs, in TQM measurements are done in order to identify problems and to document improvement, in lean the measurements should be made for planning and synchronization purposes.

For the process management techniques, different techniques are presented for both overall process level and individual activities. At an organizational level, value stream mapping (VSM) can be used for highlighting several kinds of problems in the processes. At a more operational level, different time/work study techniques are discussed (E.g. spaghetti charts). To sum up, at a philosophical level lean and TQM have many ideas in common, particularly concerning continuous improvement and the systems perspective. However, at a more operational level, the two concepts differ significantly. The fundamental values of the two concepts are also quite different, especially regarding humanistic values. Lean manufacturing is not just applicable for production and plants, however, its techniques and tools can be adapted to almost any type of operation.

In what concerns to the warehouses the lean philosophy can improve efficiency, inventory, safety, and costs reduction. Another, very important fact, is that it changes the way people think about processes and communication, it can be especially effective in helping facilities use warehouse labor more efficiently and reducing costs.

3. LEAN WAREHOUSES

Initially we will define warehousing, that has as its first role the storage of goods that can be defined as the assignment of goods in a selected location. The second role of warehousing is the implementation of the goods flows from one part of supply chain to another resulting in the transformation of the warehouses into distribution centers. After these roles, we can say that the essential issue for warehousing is the management of space and time. In the beginning the warehouse was looked as a buffer against uncertainty of supply. Nowadays warehousing is done for many other reasons, for example for the stored inventory, warehousing is most used as a buffer against the uncertainty of demand and is used to improve the customer service. The closer the warehouse is to its customers, the better service it can provide. A further shift has occurred in the type of warehousing, to varying general purpose, customized, owned, leased, or operated by third parties. The third party logistics are used when a company decides to outsource this activity with an external operator (Ackermann and Brewer, 2001).

The main processes of the warehouse or distribution center include:

- Receiving: this includes the monitoring of goods, both in terms of quantity and quality, often with depalletizing and transferring to a storage area; and the receipt of returned goods.
- Storage: this includes organizing goods according to bulk, long and short lead time products, seasonal or promotional products, and replenishment storage.
- Order picking: this includes assigning order lists to teams and teams to zones, and the organization of pickers, whether picking is done manually or electronically (e.g., pick-to-light).
- Dispatch: this comprises packaging and order consolidation, which may include staging or interim storage and shipping.

Another issue related with warehouses, is the quality of service that it can provide to the organization and to their internal and external costumers. One of the best metrics used to account this perception is the feedback given by the costumers and team that works in the warehouse. There are six quality metrics that are based on costumers perceptions:

- Costumer complaints
- On time delivery
- Timely receiving
- Accurate and timely documentation
- Compliance with rules for loading and marking
- Internal organization

Some quality measures are primarily internal, but if neglected they may influence costumers perceptions, these internal measures include the following:

- Work practices
- Accidents
- Employee turnover
- Equipment downtime
- Product damage
- Compliance with government regulations

Since quality of service and storage are key elements to measure the quality of service provided, the use of the lean philosophy becomes very important, since quality is one of the key elements in this approach. Lean has born in the car plants, but the lean philosophy can also be applied to the warehouses (Hines et al. 2001), mainly involving:

- Reduced bin sizes
- Storage by part type, with frequently used parts near the front or aisle end

- A division of working day and tasks into standard work cycles
- Synchronized order-pick-pack-dispatch and delivery steps for each delivery route (milk route) out to a group of local dealers
- Staggered outward delivery routes
- Controlled progress and irregularities through binning or picking ticket bundles for each cycle (preventing working ahead), and visual control boards
- The logging of irregularities and prioritization in order to conduct root-cause elimination of the most frequent problems to prevent recurrences and hence improve the process

In the Toyota's regional distribution center the application of these procedures lead to a stock reduction of 20 weeks, from 24 to 4 weeks. The service rate and productivity have improved three times compared with a regular organized distribution center, without any automation of processes.

Lean concepts can be successfully applied to a warehouse environment. Value stream mapping (VSM) can be a valuable tool for developing and implementing warehousing lean improvement projects. The process of creating the value stream map helps to train the warehouse team on lean techniques and to reveal opportunities to reduce waste. Some of the traditional lean techniques such as cellular manufacturing and setup time reduction may not be applicable to most warehouse environments. However, once the value stream map has been developed, the waste in the warehouse process can be easily identified and eliminated using:

- Reduction in material handling time in order picking, putaway, and palletizing
- Reliability issues with the strapping and metal detection machines
- Reduction in truck loading time
- Reduction in time spent checking inventory location and aging
- Improved order processing and tracking
- Reduced material handling
- Improved inventory organization
- Cross training
- Quality tracking

Using the VSM, the goal in developing the future state map is to make the flow continuous and to eliminate as much waste as possible. Lead time is shortened as much as possible by implementing lean techniques. The flow in the future state map is built around the takt time, or how frequently a unit must be completed to meet customer demand. Takt time is simply the available working time per shift divided by the rate of customer demand per shift. The lean improvements, implemented in a warehouse can reduce order processing time by 50% and lead time by 25% (Garcia and Director, 2004).

As seen above lean concepts can lead to significant costs reduction, so warehouse and distribution center managers spend a lot of time trying to figure out how to handle the greatest amount of product in as little time as possible, with the highest level of service, and at the lowest possible cost. That's because even in the most efficient facilities, there is waste to be found: wasted motion, wasted time, wasted inventory, and more. One direction to eliminate waste - defined in lean philosophy as anything that does not provide value to the customer and to the company - is through the kind of continuous improvement program associated with lean.

Lean's objectives in a plant are similar to those of warehouse and distribution centers operators. The seven wastes that lean management seeks to eliminate are all present in warehouses and they include (Gooley, 2013):

- Transportation (driving a forklift without a load)
- Defects (time spent fixing work done incorrectly, such as mispicks)

- Inventories (piling staged product in locations that create congestion)
- Motion (temporarily placing inbound pallets on the floor instead of directly into storage)
- Wait time (waiting to load or unload trucks)
- Overproduction (making or ordering more product than is needed or before there is demand for it)
- Over processing (performing steps in a process like packing and shipping that are unnecessary)

There are another wastes that the companies realize, like unused employee creativity or knowledge and over engineering (applying a complex solution when a simple one would suffice) as warehousing-related wastes they try to avoid.

Lean philosophy is appropriate for any kind of process that includes a lot of steps, and warehousing and distribution certainly fits that profile. Lean management aims to create a culture of continuous improvement that engages employees at all levels, especially those who perform the work processes, identifying waste and developing and implementing remedies. But it's also applicable to the warehouse at a tactical level.

In a warehouse, every type of waste has an impact on labor in one way or another. If everyone in a facility can develop the spirit of looking for waste reduction and identify ways to eliminate it, it will have an immediate and direct impact on labor costs. Waiting (orders or people) is one of the biggest labor-related wastes inside a warehouse. If people are waiting for orders, you have labor that's not being utilized or being productive, and if orders are waiting for people, those workers will have to work harder and faster, and thus become stressed, ultimately they will have to work overtime, to keep up with the work. The lean principle that suits this kind of waste is work leveling, that is, controlling the flow and timing of activity to create level, unvarying demand during the available work time.

One of the most basic lean tools is the spaghetti chart, which maps out the path a product takes during a particular process and visually shows the motion required. That can help warehouse operators identify overly complex processes, enabling them to reduce labor costs by addressing wastes like over processing and unnecessary transportation. Order pickers would gather items and drop them off at a sorting station. Someone there would sort and consolidate the orders, and someone else would pack them. Another person would run the packages through the parcel shipping and place them for shipping. As a result, inventory would build up between each handoff.

There are mainly three things in regard to employee buy-in, first is reducing headcount should never be the goal of a lean initiative, and no full-time employee should ever be laid off because of one. Instead, warehouses can adjust their use of temporary labor, wait for staffing levels to drop through normal operation, or reassign workers to open positions. Second, contributions from the people who actually do the work are an integral part of any lean initiative. They know what actually happens, and they are in the best position to identify waste and implement improvements. Their active participation in a multilevel team is a critical success factor and will also encourage them to accept change. Third is the honest communication about the expected benefits for them, their employer, and their customers is important. While the benefits for the employer may be obvious, employees need to know that lean warehouse initiatives have personal benefits for them: a cleaner, safer workplace; less physical stress and time pressure; recognition for their ideas and achievements; and often, more business and therefore, greater job security and opportunities for promotions. Lean projects should be implemented as part of a comprehensive companywide initiative and it should be a pervasive and permanent culture, not a limited-time project that works for everybody at every level (Gooley, 2013). Lean is not easy to implement, but when done properly, it can transform a company's culture, not to mention the way a warehouse operates. We can say that lean philosophy applied to warehouses generates value for the company and for its customers.

CONCLUSION

Ford production system started the beginning of a new era in the management of automotive plants. The “father” of Toyota Production System, Taiichi Ohno, grabbed Ford’s system improved it, to the final concept of produce the kind of units needed, at the time needed and in the quantities needed such that product inventories are kept low, almost zero, that is the essence of TPS. This philosophy enabled Toyota to reach the leadership in the automotive industry in the United States and in the world in 2006.

Toyota Production System arrived in the United States in 1984 with the implementation of a Toyota plant and it was the formal beginning of the lean philosophy. Since then, its scope of application is growing and it’s being applied in several countries, in different kinds of plants, warehouses or even in offices of companies that only provide services.

Lean is not easy to implement, but when done properly, it can transform a company’s culture, not to mention the way a warehouse operates. We can say that lean philosophy applied to warehouses generates value for the company and for its customers. Lean projects should be implemented as part of a comprehensive companywide initiative and it should be a pervasive and permanent culture, not a limited-time project that works for everybody at every level.

The top management and employee’s commitment to the project are the key factors for a successful implementation of the lean techniques. The employees involvement and empowerment, the lean team, the daily lean activities are key concepts for the implementation of lean.

Lean allows companies to have excellent results without investing big amounts of money in projects of automation warehouse activities. Most of all, it allows the companies to look inside them and identify the problems and processes that need to be improved. The person that knows better what are the problems and the solutions for its activity is the person that daily performs it, so employee’s involvement is the trigger that allows the long term application of the this tool and the continuous improvement of the company.

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