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AN EMPIRICAL DATA ANALYSIS TO THE CONTRIBUTION OF TRADE TO THE DEVELOPMENT OF GDP ON SELECTED EUROZONE COUNTRIES

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Abstract: **-**

Before the recent economic crisis international trade in goods and services, both for imports and exports, showed a steady increase throughout the OECD area, with the OECD total increasing (on average) by between5 and 6 percentage points for both measures between2004 and 2008, with imports slightly outpacing exports. In 2009 however, in the midst of the recent crisis, the ratio for both imports and exports in GDP fell markedly, wiping out nearly all of the increases recorded after2004. The GDP ratio for exports in 2009 at 24.5%, was significantly below the one for 2008 (27.7%). This pattern was mirrored by the import-to-GDP ratio for the OECD total, which decreased on average from 29.2% in2008 to 24.9% in 2009. In 2010, the shares of both imports and exports regained partly their previous losses. These increases continued in 2011, for almost all countries for which data are available. A majority of these countries has now shares of imports and exports that are larger than the pre-crisis levels. Looking at the balance of exports and imports, Luxembourg, Norway, Switzerland and Ireland show large and consistent surpluses of more than 10% of GDP, whereas the Netherlands, Hungary, Iceland, Germany, Sweden, the Czech Republic and the Slovak Republic have surpluses of more than 5%. On the other hand Turkey, Greece, the United States, France and the United Kingdom have persistent deficits of more than 2% of GDP.

***Keywords:* Trade, Goods, Development, Commercial Services, Eurozone, Gross Domestic Product.**

Jel codes: F18, F13, F63, O11, O19, O64

Introduction

In today's increasingly globalized world, exports and imports are key aggregates in the analysis of a country's economic situation. Whenever an economy slows down or accelerates, all other economies are potentially affected.

Equally, imports reflect the same transactions from non-residents to residents.

Not all goods need to physically enter a country's border to be recorded as an export or import. Transportation equipment, goods produced by residents in international waters sold directly to non-residents, and food consumed in ships or planes are but a few examples of transactions which may be recorded as exports or imports without physically crossing borders.

Equally not all goods that enter a country's borders are necessarily imports or exports. Transportation equipment, goods sent abroad for minor processing (or which enter and leave a country in their original state and ownership) are examples of goods that cross borders but are not recorded as imports or exports.

Goods (merchandise trade) reflect the bulk of import and exports, and these are generally well covered and afford good comparability across countries; although discrepancies between total imports and exports of traded goods at the global level reveal that measurement in practice is not trivial. Growth in trade through the Internet has increased measurement difficulties.

The comparability of trade in services is greater affected by practical measurement issues however; even if the conceptual approach, as it is for goods, is the same for all OECD countries. *.(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm,25/10/2016)* [1].

Data and Empirical Results

Until recently, exports and imports of services mainly consisted of transport services (sea, air) and insurance. But increases in outsourcing, merchanting, processing services and transactions in intellectual property, such as software and artistic originals, have increased the difficulties inherent in the measurement of trade in services. *.(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm,25/10/2016)* [1].

Exports, showed a steady increase throughout the OECD area, with the OECD total increasing (on average) by between 5 and 6 percentage points for both measures between 2004 and 2008, with imports slightly outpacing exports. In 2009 however, in the midst of the recent crisis, the ratio for both imports and exports in GDP fell markedly, wiping out nearly all of the increases recorded after 2004. The GDP ratio for exports in 2009 at 24.5%, was significantly below the one for 2008 (27.7%). This pattern was mirrored by the import-to-GDP ratio for the OECD total, which decreased on average from 29.2% in 2008 to 24.9% in 2009. In 2010, the shares of both imports and exports regained partly their previous losses. These increases continued in 2011, for almost all countries for which data are available. A majority of these countries has now shares of imports and exports that are larger than the pre-crisis levels.

Looking at the balance of exports and imports, Luxembourg, Norway, Switzerland and Ireland show large and consistent surpluses of more than 10% of GDP, whereas the Netherlands, Hungary, Iceland, Germany, Sweden, the Czech Republic and the Slovak Republic have surpluses of more than 5%. On the other hand Turkey, Greece, the United States, France and the United Kingdom have persistent deficits of more than 2% of GDP.*(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm,25/10/2016)* [1]

Figure1: Imports and Exports as a % of GDP.

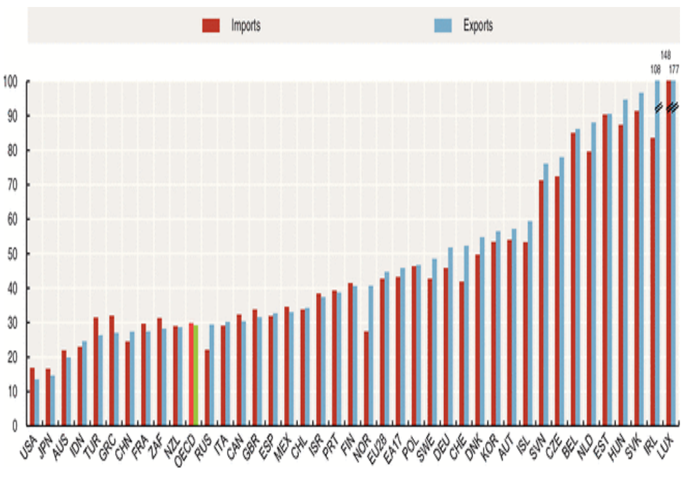

Figure 2: Imports and Exports/Country

	Imports	Exports
USA	16,89	13,52
JPN	16,64	14,66
AUS	21,99	19,93
IDN	22,98	24,61
TUR	31,51	26,36
GRC	32,03	27,00
CHN	24,53	27,35
FRA	29,65	27,44
ZAF	31,31	28,26
NZL	29,03	28,63
OECD	29,85	29,16
RUS	22,14	29,44
ITA	29,09	30,22
CAN	32,38	30,42
GBR	33,78	31,56
ESP	31,91	32,65
MEX	34,62	33,03
CHL	33,85	34,21
ISR	38,48	37,41
PRT	39,30	38,69
FIN	41,43	40,57
NOR	27,48	40,70
EU28	42,75	44,72
EA17	43,23	45,85
POL	46,39	46,69
SWE	42,72	48,52
DEU	45,87	51,79
CHE	41,86	52,30
DNK	49,72	54,80
KOR	53,42	56,50
AUT	53,98	57,20
ISL	53,31	59,43
SVN	71,26	76,08
CZE	72,43	78,03
BEL	85,02	86,13
NLD	79,63	88,03
EST	90,33	90,56
HUN	87,32	94,66
SVK	91,37	96,61
IRL	83,56	107,81
LUX	148,17	177,29

G20 merchandise trade in Q2 2016 shows first modest growth since early 2014 G20 total international merchandise trade, seasonally adjusted and expressed in current US dollars, grew modestly, in the second quarter of 2016, the first increase since early 2014, but remains significantly below post-crisis highs. Exports rose by 1.5% and imports by 2.0%, following seven and eight consecutive quarterly falls, respectively, mirroring the rise in oil prices (to almost $50 a barrel in June 2016, compared with around $35 a barrel in December 2015). Exports in Q2 2016 grew in almost all G20 economies except Argentina, Canada and China. For Canada, exports have fallen for seven consecutive quarters, and now stand at their lowest level in over six years. India, South Africa and Turkey on the other hand, all recorded export growth of more than 5.0% in Q2 2016, although like in all other G20 economies, export levels remain around 15% below post-crisis highs. All G20 economies recorded growth in imports in Q2 2016, except Argentina, France, India, Indonesia, Mexico, with marginal falls, and Russia, where imports fell by 5.0% in Q2 2016. China recorded 6.6% growth in imports in Q2 2016 but levels remain around 20% below recent highs. *(http://www.oecd.org/std/its/OECD-trade-Q22016.pdf, 25/10/2016)* [3].

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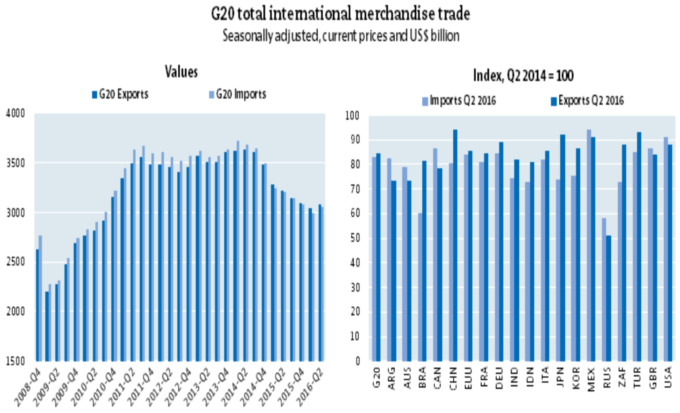
Figure 3



The last 20 years have confirmed that world gross domestic product (GDP) and world merchandise exports move in tandem but export growth is much more volatile than GDP growth.

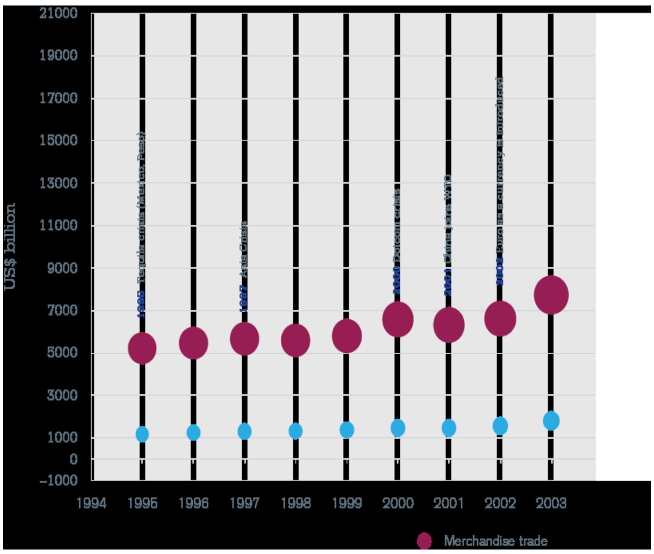
- From 1995 to 2000, world merchandise exports grew annually by an average of 7 per cent in volume terms, while world GDP grew by an average of 3 per cent.
- From 2000 to 2005, exports grew more significantly, with average growth of 5 per cent per year while the average annual GDP growth was 3 per cent.
- Between 2005 and 2010, world merchandise exports continued to grow faster than world GDP, despite the global crisis. Exports growth rates were 3 per cent during this period while GDP growth lagged behind at 2 per cent. In 2009, merchandise exports fell by 12 per cent and GDP by 2 per cent in response to the financial crisis. This was followed by a quick recovery in 2010, with merchandise exports growing by 14 per cent and GDP by 4 per cent.
- The sluggish post-crisis economic expansion (2.5 per cent rise in GDP per year on average from 2010 to 2014) was accompanied by mediocre trade developments, as exports increased by only 3 per cent on average per year. *(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm, 25/10/2016)*[1].

The Consept of Trade on Development Issues

Trade in goods and services has fluctuated significantly over the last 20 years. Up to the late 1990s, trade flows rose gradually. This was followed by a strong rise in the early 2000s and a sharp fall after the economic crisis in 2008. Recent years have seen a moderate recovery.*(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm, 25/10/2016)* [1].

- Trade experienced fairly strong growth from 1995 to 2001, followed by a boom from 2002 to 2008 accompanied by rising commodity prices. Following the financial crisis in 2008, trade fell steeply in 2009 before rebounding strongly in 2010 and 2011. However, trade growth since then has been unusually weak.
- Various crises had an impact on trade from 1995 to 2001. These included Mexico's monetary crisis (1995-2001), the Asian financial crisis of 1997, and the bursting of the dotcom bubble in 2001. The latter two factors resulted in negative growth for merchandise trade in 1998 and 2001.
- China's accession to the WTO in December 2001 paved the way for its economic rise and significantly contributed to increasing world trade from 2002 to 2008. Another noteworthy event in the early 2000s was the introduction of euro coins and notes in 2002.
- Strong Chinese demand for natural resources contributed to rising prices for crude oil and other primary commodities between 2002 and 2008.
- The 2008 financial crisis, triggered by the subprime lending crisis in the United States, led to a global recession between 2008 and 2011. The volume of world exports plunged 12 per cent in 2009 while world gross domestic product (GDP) dropped 2 per cent.

Figure 4: World merchandise trade and trade in commercial services, 1995-2014.



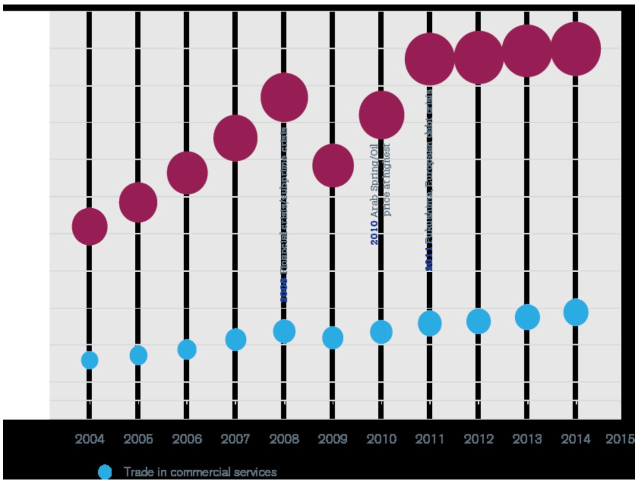
Exports of goods rebounded in 2010, with a growth rate of 14 per cent in volume terms. (In value terms)

However, the recovery was hampered by an increase in oil prices in 2010, partly as a consequence of political instability in oil-producing countries (the so-called Arab Spring).

From 2011 onwards, the European debt crisis weighed heavily on world trade growth.

- Debt crises and geo-political tensions intensified in 2014, causing world trade to slow to a crawl over the last few years. In value terms, world merchandise trade growth averaged just 1 per cent per year from 2012 to 2014.1
- International trade in commercial services has been less volatile than merchandise trade in the last 20 years, indicating the greater resilience of services to global macroeconomic
- upheaval.(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm, 25/10/2016)[1].
- Over the last two decades, world services trade has recorded negative annual growth only once (-9 per cent in 2009), in the wake of the global financial crisis. In 2010, services trade resumed its pre-crisis level and has continued to expand steadily despite sluggish economic growth. In current dollars, global exports of services increased by 5per cent in 2014, compared with 0.5 per cent for goods.
- Global services trade, as measured by balance-of-payments statistics, represents only about a fifth of total trade in goods and services combined. However, these international transactions do not cover services delivered via foreign affiliates. International trade in services is therefore considered to be larger than the totals indicated by balance-of payments figures. Foreign affiliates' trade statistics (FATS) provide a broader picture of trade in services. *(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm, 25/10/2016)* [1].

Figure 5: Trade in commercial services(2004-2015)

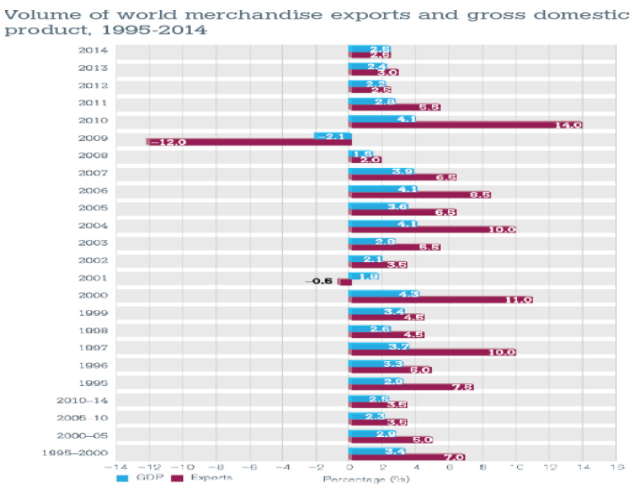


World trade and GDP tend to grow in tandem but trade experiences stronger fluctuations, particularly in declines.

A Macroeconomic Statistical Analysis Framework

- The last 20 years have confirmed that world gross domestic product (GDP) and world merchandise exports move in tandem but export growth is much more volatile than GDP growth.
- From 1995 to 2000, world merchandise exports grew annually by an average of 7 percent in volume terms, while world GDP grew by an average of 3 per cent. From 2000 to2005, exports grew more significantly, with average growth of 5 per cent per year while the average annual GDP growth was 3 per cent.
- Between 2005 and 2010, world merchandise exports continued to grow faster than world GDP, despite the global crisis. Exports growth rates were 3 per cent during this period while GDP growth lagged behind at 2 per cent. In 2009, merchandise exports fell by 12 per centand GDP by 2 per cent in response to the financial crisis. This was followed by a quick recovery in 2010, with merchandise exports growing by 14 per cent and GDP by 4 per cent.
- The sluggish post-crisis economic expansion (2.5 per cent rise in GDP per year on average from 2010 to 2014) was accompanied by mediocre trade developments, as exports increased by only 3 per cent on average per year. *(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm,25/10/2016)*[1].

Graph 6: Volume of world merchandise exports and gross domestic product (1995-2014)

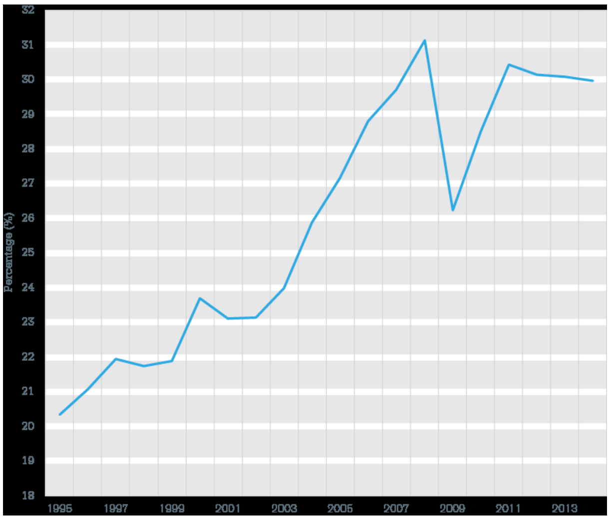


Despite the financial crisis, the share of world trade in GDP is much higher today than it was 20 years ago

- The average share of exports and imports of goods and commercial services in world GDP increased significantly from 20 per cent in 1995 to 30 per centin 2014 (in value terms). In other words, today's GDP is highly influenced by international trade. *(http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm, 25/10/2016)* [1].

- The economic crisis seriously affected exports and imports in 2009. The share of trade in GDP fell 5 percentage points to 26 per cent in 2009 from 31 percent in 2008. Much of this decline was attributed to a drop in the price of commodities. Despite a robust recovery in 2010-11, the ratio of trade to GDP in value terms remains below its 2008 peak.

Graph 7: Ratio of trade in goods and commercial services to GDP, 1995-2014



Note: Trade to GDP ratio is estimated as total trade of goods and commercial services underBPM5 (exports + imports, balance of payments basis) divided by GDP, which is measured innominal terms and with market exchange rate

Summary and Conclusions

The dramatic slowing of trade growth is serious and should serve as a wake-up call.

While the benefits of trade are clear, it is also clear that they need to be shared more widely. Therefore, it is needed to build a more inclusive trading system that goes further to support poorer countries to take part and benefit, as well as entrepreneurs, small companies, and marginalized groups in all economies.

The mots recent figures show a disappointing development and underline a recent weakening in the relations between trade and GDP growth. Over the long term trade has typically grown at 1.5 times faster than GDP, though in the 1990s world merchandise trade volume grew about twice as fast as world real GDP at market exchange rates. In recent years however, the ratio has slipped towards 1:1, below both the peak of the 1990's and the long-term average.

If the revised projection holds, 2016 will be the first time in 15 years that the ratio between trade growth and world GDP has fallen below 1:1. Historically strong trade growth has been a sign of strong economic growth, as trade has provided a way for developing and emerging economies to grow quickly, and strong import growth has been associated with faster growth in developed countries. However the increase of the number of systematically important trading countries and the shift in the ratio of trade and GDP growth makes it more difficult to forecast future trade growth. Therefore, the WTO is for the first time providing a range of scenarios for its 2017 trade forecast rather than giving specific figures. The current trend in the relationship between trade growth and world GDP is lower than observed over the last three decades.

There are some indications that trade may be picking up in the second half of 2016, although the pace of expansion is likely to remain subdued.

The UK referendum result did not produce an immediately observable downturn in economic activity as measured by industrial production or employment; the main impact was a 13% drop in the exchange rate of the pound against the US dollar and an 11% decline in its value against the euro. Effects over the longer term remain to be seen. Economic forecasts for the UK in 2017 range from fairly optimistic to quite pessimistic.

A number of reasons have been advanced to explain the decline in the ratio of trade growth to GDP growth in recent years, including the changes in the import content of demand, absence of trade liberalization, creeping protectionism, a contraction of global value chains (GVCs), and possibly the increasing role of the digital economy and e-commerce, but all have likely played a role. Whatever the cause, the recent run of weak trade, and economic, growth suggests the need for a better understanding of changing global economic relationships.

References

[1] International trade statistics: trends in second quarter 2016, available at:*http://www.oecd.org/std/its/international-trade-statistics-trends-in-second-quarter-2016.htm*, last assessed at: 25/10/2016.

[2] OECD –library-factbook 2014, available at:*http://www.oecd-ilibrary.org/sites/factbook-2014-29-en/index.html*, last assessed at: 25/10/2016

[3] G20 merchandise trade in Q2 2016 shows first modest growth since early 2014, available at: *http://www.oecd.org/std/its/OECD-trade-Q22016.pdf* last assessed at: 25/10/2016.

[4] Arkolis C., A. Doxiadis and M. Galenianos (2015), "The challenge of trade adjustment in Greece", in

"Crisis in the Eurozone periphery: Policy options for Greece", MIT Press

[5] Caldera Sánchez, A., A. de Serres, N. Yashiro (2015), "The Short-Run Impact of Reforms," OECD Economics Department. Causa, O. and Å. Johansson (2009), "Intergenerational Social Mobility", OECD.

[6] EC (2015a), "Study to quantify and analyze the VAT Gap in the EU Member States 2015 Report," TAXUD/2013/DE/321, Warsaw May 2015 accessed in February 2016 at: *http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/vat_gap2013.pdf*

[7] EC (2015d), Debt sustainability analysis, Documents provided to the Board of Governors and euro area ministers with updates following initial assessments to determine Greece's eligibility for an ESM program, available at: *http://ec.europa.eu/economy_finance/assistance_eu_ms/greek_loan_facility/pdf/debt_sustainability_analysis_en.pdf*, last assessed at:15/10/2016.

[8] EEA (2014), Country Profile: Greece, available at: www.eea.europa.eu/themes/climate/country-profiles, last assessed:15/10/2016.

[9] EC (2015d), Debt sustainability analysis, Documents provided to the Board of Governors and euro area ministers with updates following initial assessments to determine Greece's eligibility for an ESM program, available at: *http://ec.europa.eu/economy_finance/assistance_eu_ms/greek_loan_facility/pdf/debt_sustainability_analysis_en.pdf*, last assessed at: 15/10/2016.

[10] EEA (2014), Country Profile: Greece, available at: www.eea.europa.eu/themes/climate/country-profiles, last assessed:15/10/2016.

[11] Eichengreen, B.J. and U. Panizza (2014), "A Surplus of Ambition: Can Europe Rely on Large Primary Surpluses to Solve its Debt Problem?" NBER Working Paper, No. 20316, National Bureau of Economic Research, Cambridge MA, July.

[12] Fournier, J. and F. Fall (2015), "Limits to government debt sustainability", OECD Economics Department Working Papers, No. 1229, OECD Publishing, Paris

[13] Fournier, J. (2015), "The negative effect of regulatory divergence on foreign direct investment", OECD Economics Department Working Papers, No. 1268, OECD Publishing, Paris.