

COMMERCE 3.0: ENABLING AUSTRALIAN EXPORT OPPORTUNITIES

July 2013



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MESSAGE FROM JOO MAN PARK, MANAGING DIRECTOR EBAY AUSTRALIA & NEW ZEALAND



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EVER-GROWING OPPORTUNITIES FOR EXPORTERS

For the first time ever, worldwide ecommerce sales have exceeded \$1 trillion, according to research firm eMarketer. This milestone was reached in 2012, a year in which sales were up 21 percent from the previous year. It is expected revenue will grow another 18 percent in 2013, with worldwide sales topping \$1.3 trillion and the Asia Pacific surpassing North America to become the world's number-one market for B2C ecommerce.

As a significant trading partner in Asia Pacific, Australia is uniquely placed to leverage this growth. Four of Australia's five largest two-way trading partners are located in the region: China, Japan, the Republic of Korea and Singapore.¹ That said, eBay sellers from Australia sell to a much more diverse market.

Australia is also a key player in many regional forums including Asia Pacific Economic Cooperation (APEC) and the ASEAN Regional Forum (ARF). Its hosting of the G20 Summit, representing the world's largest economies, in Brisbane next year will reinforce its importance in global trade.

Similarly, eBay has an increasingly vital role to play in the continued expansion of ecommerce, supported by technology, because it enables thousands of Australian businesses to grow. For example our 2012 Online Business Index found that our top 2,000 sellers grew by 45 percent year-on-year, and eBay represents almost one in five (17%) of Australia's small and medium enterprises (with annual sales of AUD50,000 – AUD200,000). Just as importantly, more and more of these businesses are becoming exporters, creating further opportunity and jobs for Australians.

eBay represents enormous potential for Australia's economy, with significant economic welfare gains, by allowing frictionless trade.

In this report, we will further examine the significance of eBay sellers for the Australian economy, and how eBay as a platform grows exports. Much of the material refers to the findings of a study by global law firm Sidley Austin LLP, commissioned by eBay, to analyse and report on eBay's Australian sellers between 2006 and 2012.

These findings have special resonance for Australia, in view of its rapid progress and continued focus on international trade as a driver of growth and development.

Most businesses referred to in the report are small and medium enterprises which stand much to gain from technology-enabled commerce. Indeed technology-enabled trade is a tool by which businesses of all sizes can gain access to world markets – and the technology is evolving rapidly. The near future will likely present ever more efficient channels and mechanisms for connecting consumers and traders worldwide. As eBay Inc. CEO John Donahoe has said: "I believe you're going to see more change in how consumers shop and pay in the next three years than we've seen in the last 20 years."

And that, of course, opens up a world of fresh opportunities.

Jooman Park
MANAGING DIRECTOR
eBAY AUSTRALIA & NEW ZEALAND

EXECUTIVE SUMMARY

The new retail world represents, increasingly, a convergence of online and “traditional” business. Multi-channel commerce is the biggest catalyst for growth in the retail industry today, encouraging entrepreneurship, enabling new businesses to emerge and compete with more established players, and opening up opportunities to sell to a global customer base.

In this new paradigm, online commerce is not a competitor to the traditional retail sector, it is a partner. If they embrace it fully, retailers large and small can potentially enjoy the benefits of future growth.

This report outlines increases in cross-border trade and supporting SMEs as a way to help secure sustainable economic growth.

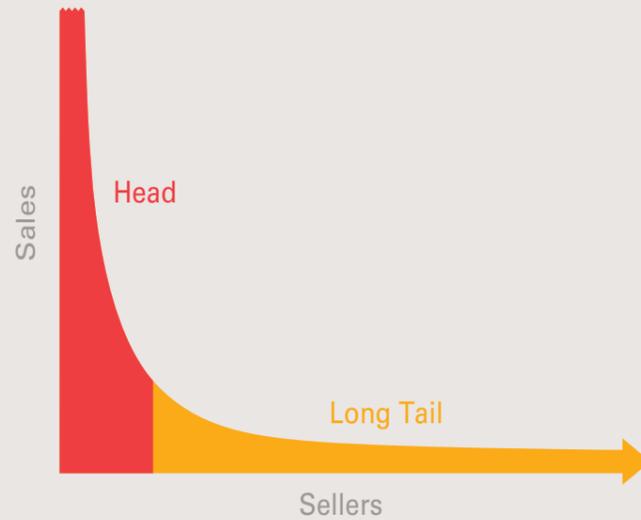
It will demonstrate how businesses that embrace online and multi-channel commerce will promote greater international trade and, in the case of Australian sellers, stronger exports. We call this transformation Commerce 3.0.

International multi-channel trade is subject to fewer frictions than traditional international trade dominated by bricks and mortar. This means there is tremendous potential for traditional businesses to make welfare gains if they embrace multi-channel commerce.

eBay research into individual sellers in the US and several European countries shows that eBay sellers in many ways behave differently from traditional firms. For example, most eBay sellers are engaged in exporting, and sell to many more countries than their bricks-and-mortar counterparts.

Moreover, smaller eBay sellers comprise a larger share of sales than bigger ones, which illustrates that eBay empowers these entrepreneurs in a way that appears impossible in the traditional landscape. According to one ecommerce hypothesis, “The Long Tail,” in the future small sellers (the “long tail” as depicted in Figure 1) gain importance, while large businesses (the “head” of the distribution) become less dominant.

FIGURE 1: “THE LONGTAIL” OF BUSINESS



Source: Anderson (2006).

The snapshot below provides a quick overview of how eBay is helping entrepreneurs of all sizes to grow and participate profitably in cross-border trade:

eBay represents almost one in five (17 percent) of Australian retailers with annual sales of between **AUD50,000 and AUD200,000**, which means eBay represents a significant share of Australian SMEs.

eBay sellers’ survival and growth patterns are similar to those of traditional Australian businesses. Survival rates for Australian eBay sellers are comparable to those of their traditional counterparts, and appear higher for small eBay sellers compared to small traditional businesses.

The number of eBay sellers with sales above AUD1 million increased by almost **500 percent** between 2006 and 2012.

The eBay world is “flat” and seamlessly links Australia to the world. International trade conducted via eBay is subject to fewer frictions than traditional trade. For Australia, the trade-reducing effect of geographic distance, a proxy for a wide variety of trade costs, has half the impact on eBay compared to traditional trade. Distance thus matters less on eBay. The world is “flatter” for eBay users, which helps link Australian sellers to global markets.

eBay creates jobs. Australia has a very large number of commercial eBay sellers. Around 26,000 of them have annual sales of AUD10,000 or more. Sidley Austin estimates that they create up to **50,000 jobs**.

eBay empowers small sellers. Large sellers exist on eBay, but the eBay market is much less dominated by a small group of big players than in traditional business. In this way eBay “democratises” business activity, giving SMEs more opportunities.

eBay facilitates exporting. The Sidley Austin study found that **78 percent** of commercial eBay sellers export, compared to only two percent of all registered businesses (which are most often traditional businesses) in Australia. On average, commercial eBay exporters ship to 28 destinations, while traditional exporters only ship to three. This demonstrates convincingly that eBay makes it much easier for Australian businesses to reach foreign markets.

eBay represents enormous potential for Australia’s economy. By simulating a hypothetical scenario under which all international traditional trade is conducted in the same frictionless way as trade on eBay, we find that economic welfare gains for many countries can be great. Australia, as a remote economy, would be one of the biggest beneficiaries, with welfare increases estimated to reach **50 percent of GDP**.

eBay sellers genuinely focus on core competencies. As eBay sellers grow, they sell more product varieties, but once they reach a certain level of sales, they focus on fewer product categories. This focus helps them to grow further.

Large eBay sellers (more than AUD200,000 in sales) represent around **3.4 percent** of all Australian retailers.

AN OVERVIEW OF AUSTRALIA-RELATED EBAY TRADE

The United States is the main import and export destination
for Australian-based eBay sellers.

>79%

The share of exports through the Australian site grew from **60% to 79%** between 2006 and 2012.

>99.7%

When both buyer and seller are in Australia, **99.7% of domestic sales are conducted on the local eBay site.**



eBay has an increasingly vital role **to play in the continued expansion of ecommerce, supported by technology.**

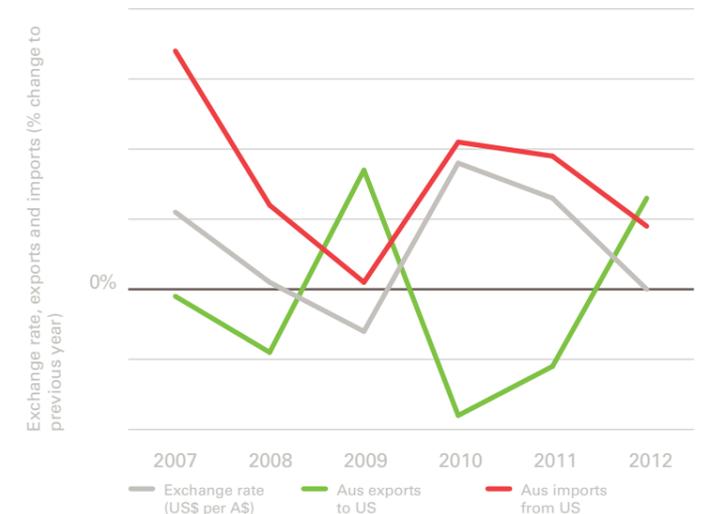
Figure 2 shows that the appreciation of the AUD was associated with an increase in eBay imports from the US. Australian eBay exports to the US have been on the increase since 2010.

Figure 3 provides an overview of the main export destinations for Australian-based eBay sellers, and import sources for Australian-based eBay buyers. For exports and imports, the US has a dominant share of 41 and 42 percent, respectively. Other main export destinations are the UK (GBR) and Canada, while the next largest import source countries are China, UK and Hong Kong.

Figure 5 shows a relatively high percentage of *export* trade is conducted on the eBay Australia site. Typically, the share of trade channeled through the site of the buyer country site is small, except in the case of the US, UK and Germany, all of which have large eBay sites.

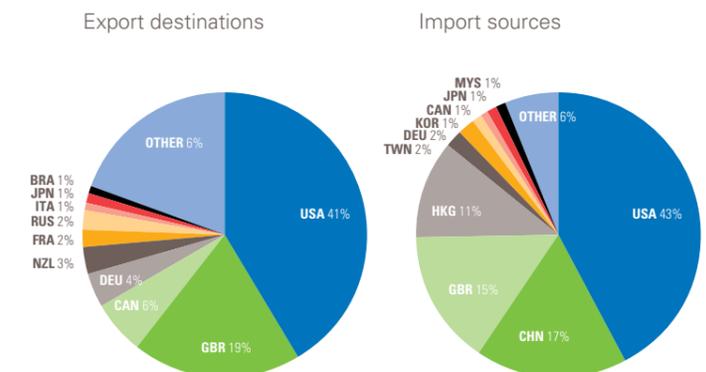
In smaller destination markets, a fairly high proportion of sales are via third-country sites, such as eBay.com. If a destination market has no national eBay site, then obviously no trade goes through it.

FIGURE 2: EBAY TRADE WITH THE US AND EXCHANGE RATE EFFECTS



Source: This chart shows the year-by-year percentage changes in the exchange rate, imports and exports.

FIGURE 3: AUSTRALIAN EBAY TRADE – MAIN TRADING PARTNERS IN 2012



Source: Sidley Austin calculations based on data provided by eBay.

EFFECT OF DISTANCE ON IMPORTS AND EXPORTS: EBAY VERSUS TRADITIONAL TRADE

Figure 5 shows very high percentage of Australian imports are bought through the seller country site, if indeed the seller country possesses a national site. If not, most trade is conducted on a third-country site – usually eBay.com. Domestic sales, when both buyer and seller are located in Australia, are almost always conducted on the Australian site (99.7 percent of value in 2012).

In the case of exports, the Australian site is used predominantly. The share of exports going through it increased from 60 percent to 79 percent between 2006 and 2012.

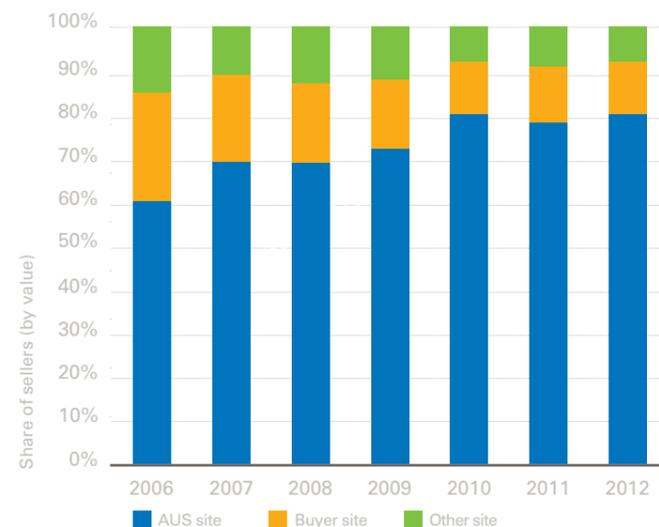
Figure 4 depicts the top 10 export categories by Australian sellers in 2012.

FIGURE 4: TOP 10 EXPORTS BY AU BASED SELLERS (2012)

- Exports by AU based sellers
- 1 Clothes, Shoes, Accessories
 - 2 Jewellery & Watches
 - 3 Computing
 - 4 Cell Phones & Accessories
 - 5 Photography
 - 6 Auto Parts
 - 7 Sporting Goods
 - 8 Collectables
 - 9 Toys & Games
 - 10 Home & Garden

Source: Sidley Austin calculations based on data provided by eBay.

FIGURE 5: SITES USED FOR AUSTRALIAN EXPORTS (2006-2012)



Sources: Sidley Austin calculations based on data provided by eBay.



eBay creates trust

– and enables transactions that would otherwise not have occurred.

GDP trade

Countries with a higher GDP trade more with Australia, both on eBay and traditionally.



eBay reduces search and information costs.



We can conclude that on eBay, the world appears almost 'flat' to traders.

In this section, it is shown how geographic distance (a proxy for many trade impediments²) affects eBay exports and imports from and to Australia, and how this trade compares with Australia's traditional trade flows. Sidley Austin previously undertook a similar analysis for bilateral eBay trade between 62 countries.³ In that paper, they found that eBay trade flows are much less affected by geographic distance between countries. While more distant countries also trade less on eBay, that trade-reducing effect is about two-thirds smaller on eBay compared to traditional trade. In other words, the world appears almost "flat" on eBay.

In previous work, Sidley Austin hypothesised the reason for this empirical "distance differential". Sidley Austin found that eBay serves two fundamental roles: it reduces search and information costs, thus enabling transactions that otherwise would not have occurred; and it creates trust, thus enabling trade in niche products or with participants in remote countries with weak institutions.

In economics, such an analysis of distance (as a proxy for trade costs) is widely conducted by means of a "gravity equation". The gravity equation is an economic tool for the analysis of international trade flows and how they are influenced by policies, geographical patterns or economic indicators. A regression analysis is conducted to help explain the volume of trade flows between country-pairs, and the trade volume is typically found to be negatively related to geographical distance between the two countries. In other words, countries that are further apart trade, on average, less with each other. Similarly, trade flows are positively correlated with the economic size of the importing and the exporting countries (countries with bigger GDP import and export more).⁴

Historical and sociological factors typically influence trade flows. For example, having a common language, a similar legal system or colonial links usually increase trade.

The gravity equation approach is also widely used to test how other indicators, in particular those that can be influenced by policymakers, influence trade. Examples include free-trade agreements: do countries that have signed such an agreement between them, on average, trade more? Or how does a common language, or common currency, impact trade flows?

In reviewing Australia eBay data, Sidley Austin included analysis of imports and exports for trade with *all* countries⁵, thus allowing it to identify the impact of the distance coefficient on the magnitude of these trade flows. By using traditional import and export data available for Australia, they could determine whether distance has a stronger effect on traditional or online trade flows.

Figure 6 illustrates the key empirical finding. In its empirical work, Sidley Austin used a simple regression analysis in which they examined the trade flows by GDP of the partner country. It found that countries with a higher GDP trade more with Australia, both on eBay and traditionally.

Distance has a negative effect on trade, but the effect is much smaller on eBay. For example, a 1-percent increase in distance reduces eBay exports from Australia by 1.9 percent, whereas Australian traditional exports decrease by 3.7 percent. This result is not influenced by the fact that traditional exports are dominated by other bundles of products: traditional exports for products similar to the ones traded on eBay show almost the same decrease in trade (3.5 percent).

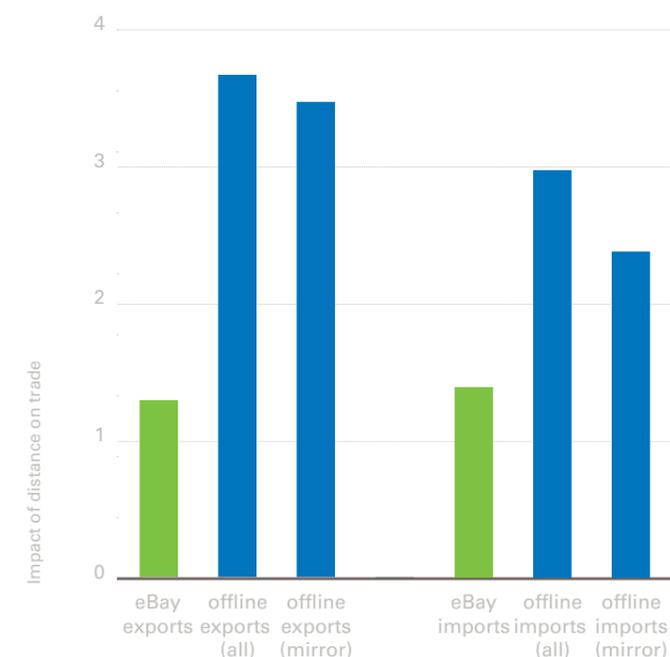
For imports, the analysis yields similar results: on eBay, imports fall by 1.4 percent when the distance to the partner country increases by 1 percent. Traditional imports decrease by 3 percent (2.4 percent for similar products). These empirical results are summarized in Figure 9.

The results are similar for a wide range of specifications and remain so if factors are added to the regression analysis, such as indicators for whether the trading partner is English-speaking, has a free-trade agreement with Australia or a similar legal system.

To summarise, the findings show that the world on eBay appears much "flatter" than in traditional trade. Australians import and export through eBay with a wide range of countries, and this is little affected by geographic distance to trading partners, at least when compared with traditional trade between Australia and other countries.

This demonstrates clearly that eBay can help overcome traditional barriers to trade.

FIGURE 6: **TRADE EFFECT OF DISTANCE – EBAY VERSUS "TRADITIONAL/OFFLINE" TRADE**



Source: Sidley Austin calculations using eBay Australia data and data for Australian traditional exports and imports from the World Integrated Trade System (WITS) database (all data from 2011). Data for GDP is from the World Bank (WEO database), and data for distance is from the Centre d'études prospectives et d'informations internationales (CEPII) database. The impact of distance is measured using a gravity equation incorporating distance and GDP. The results can be interpreted as the percentage fall in trade for a 1-percent increase in distance. For example, eBay exports fall by 1.9 percent when distance increases by 1 percent, whereas traditional exports fall by 3.7 percent. "Mirror" exports or imports refer to traditional trade in products similar to the products traded on eBay.

² The term "distance" is a proxy for many types of transaction costs that impede trade between market participants: cross-border costs (e.g., transportation costs, trade barriers, communication issues), institutional costs (e.g., different legal systems across countries), information asymmetries and matching costs, and issues of trust and enforcement.

³ See *Enabling Traders to Enter and Grow on the Global Stage*, http://www.ebaymainstreet.com/sites/default/files/eBay_Enabling-Traders-to-Enter-and-Grow-on-the-Global-Stage.pdf.

⁴ This explains the term "gravity equation" – it resembles the gravity equation used in physics. The force of gravity between two planets, for example, increases with mass and decreases with distance.

⁵ The data shows that Australian eBay exporters sold products to customers in 169 countries and territories. Australian eBay buyers bought products from sellers based in 144 different countries and territories.

EBAY AUSTRALIAN COMMERCIAL SELLERS

This section examines commercial eBay sellers in Australia and how they compare with other Australian businesses. Sidley Austin have made best efforts to exclude occasional sellers and consider only those “commercial” eBay retailers with annual sales above certain thresholds, such as AUD10,000.

Sidley Austin has calculated indicators for three groups of sellers: *All* sellers, those considered *non-commercial* (with annual sales below AUD10,000), and *commercial sellers* with sales above that threshold.

Of note, 78 percent of commercial sellers export, increasing to 97 percent when they reach AUD100,000 sales.

EMPLOYMENT GENERATED BY EBAY SELLERS IN AUSTRALIA

The ABS classifies enterprises in different categories, based on the number of staff (headcount) employed, with a small business being defined as one with between 0 and 19 employees. In that category, firms with fewer than 5 employees are considered “micro businesses.” Those with 20 to 199 employees are considered “medium-sized businesses” and those with more than 200 employees are “large businesses.”⁶

While this definition is useful in helping to distinguish small firms or entrepreneurs from large ones, the intention is rather to distinguish commercial from non-commercial eBay sellers. It is reasonable to assume that most eBay retailers will have fewer than 20 employees. The first threshold is commercial eBay sellers, with annual sales of AUD10,000. A second threshold used by eBay is based on Australia’s GST legislation. Businesses with an annual turnover of AUD75,000 or more are required to register for GST.⁷

Data has been collated on Australian-based eBay sellers for a series of ranges of annual sales for the years 2006-2012.

Sidley Austin found that **the number of sellers with annual sales above AUD10,000 grew from almost 18,000 in 2006 to almost 26,000 in 2012 – an increase of 46 percent.** Within these large sellers are a substantial number of very large sellers that exceed the GST threshold of AUD75,000. In 2006, around 1,900 sellers had sales above AUD75,000. **Their number more than doubled in 2012.**

The number of very large sellers with sales above AUD1,000,000 grew by a factor of almost 500 percent between 2006 and 2012 .

These figures demonstrate the importance of ecommerce in today’s retail sector in Australia. This becomes even more evident when we compare the number of commercial eBay retailers with the number of traditional retail businesses. The ABS provides figures on the number of businesses operating in Australia and for a wide range of sectors (see ABS, 2012a). Businesses are roughly defined as those with an annual turnover above AUD75,000. However, the data shows that many businesses below that threshold are also included.⁸

ABS data allows an even more detailed comparison of eBay retailers with traditional retailers. Sidley Austin compared the number of eBay retailers with the overall number of retailers – keeping in mind that the former may be a subset of the latter – for different ranges of annual turnover. For the category of retailers with annual sales between AUD50,000 and AUD200,000, where sales figures should be comparable, Sidley Austin found that the number of such eBay sellers reaches almost 17 percent of the overall number of Australian retailers as reported by the ABS. This means that eBay sellers make up a fairly significant share of small retailers in Australia.

⁶ See ABS (2011), p. 3.

⁷ See information provided by the *Australian Taxation Office*: <http://www.ato.gov.au/businesses/content.aspx?doc=/content/20724.htm&page=5> (last accessed 25.02.2013). Note that we simply assume that the annual sales contained in the eBay data is equivalent to turnover for GST purposes. While this may not be exactly correct (e.g., because eBay sales may contain GST, and some sales are exported), it should give a reasonably accurate estimate.

⁸ See ABS (2012a), p. 4. One explanation why smaller businesses are included could be that they registered for GST.

For retailers with larger turnover, that figure was lower – 3.4 percent for those between AUD200,000 and AUD2 million.

eBay sellers generate a substantial amount of employment in Australia.

Sidley Austin calculations indicate that eBay retailers in Australia employ up to 50,000 people.⁹ This does not include employment from online marketplaces other than eBay, any indirect positive or negative employment impact that ecommerce has on other retail sectors or on other sectors outside of retail (such as postal services or IT services), or any impact on economy-wide labor productivity.

Commercial eBay sellers actively trading in Australia have similar annual sales figures to those of Australian SMEs in the traditional economy. And eBay sellers make up a significant share of the overall number of businesses in Australia, at least for the category of small businesses with annual turnover of AUD200,000 or less. We have provided evidence that these sellers generate substantial employment in Australia. Since these estimates are only for eBay sellers, it is clear that the overall importance of the larger group of online retailers in Australia is even more substantial.

SALES ON EBAY ARE MUCH LESS CONCENTRATED THAN TRADITIONAL SALES

Traditional commerce is usually dominated by a small number of large firms that account for very large shares of sales, employment, profits or any other measure of business activity. On eBay, there is a much more equal distribution of, for example, annual sales. This shows how eBay empowers small sellers: they are more “on equal footing” with large sellers and the eBay market is less dominated by a small number of big sellers, as compared to traditional markets, where the leading firms capture very significant market shares.

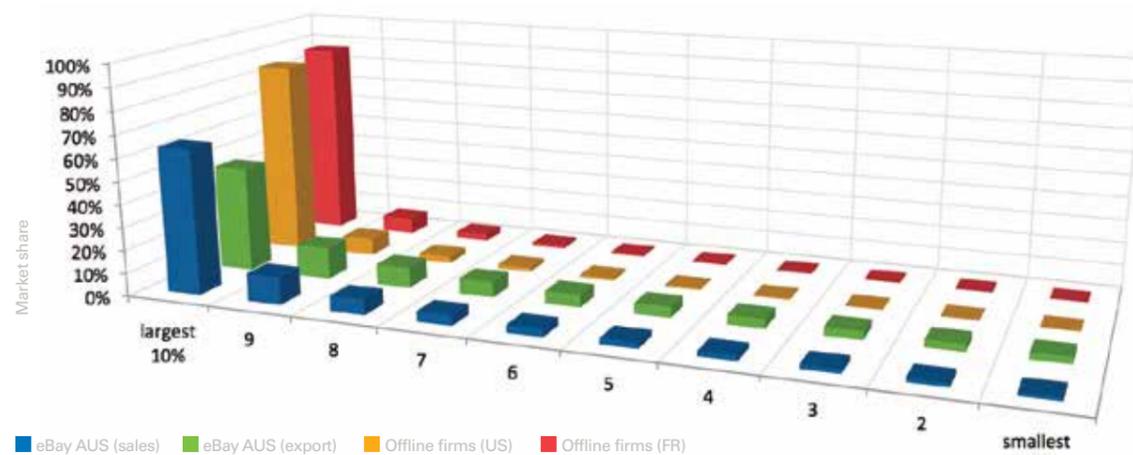
There are many indicators and statistical methods to measure the degree of inequality within a given distribution. A key way of demonstrating the low level of concentration among eBay sellers is to compare sales and export shares across deciles.¹⁰ Alternatively, one can look at the share in overall sales or exports of the largest 5 percent to 10 percent of firms or sellers – the higher that share, the more concentrated are sales in a small group of firms.

When comparing indicators for concentration with traditional firms, available data is limited to exports, which suggests we should consider export data only for eBay sellers. We also apply a threshold of at least AUD10,000 of exports per year to make such exporters more comparable with traditional exporters.

⁹ A survey by eBay.com.au in 2011 among 357 large commercial sellers (ranging from an annual turnover of AUD3,700 to AUD 2.8 million) found that those sellers employ on average three full-time staff. In 2012, 387 sellers with annual sales ranging from AUD67,000 to AUD4.7 million responded to the survey and were found to employ an average of five staff. Data from the ABS shows that in the retail sub-category “Non-store retailing and retail commission-based buying and/or selling,” which includes both online retail and other retail categories, employment grew from 18,000 in FY 2006/07 to 24,000 in FY 2010/11, with a turnover of AUD182,000 per employee in the last period. Based on these estimates Sidley Austin concludes that eBay helps create up to 50,000 jobs in Australia.

¹⁰ For deciles, all firms or sellers are ordered by sales value and then split into ten equally large groups (“deciles”). The first decile thus contains the 10 percent of sellers with the largest sales, and the 10th decile contains the smallest 10 percent of sellers.

FIGURE 7: SALES AND EXPORT SHARES BY DECILES – EBAY AND TRADITIONAL EXPORTERS



Sources: eBay: data for 2012, sellers with sales of at least AUD10,000 and exporters with exports of at least AUD10,000. US traditional firms: Bernard et al. (2010a), Table 8 (for retailers). French firms: Eaton et al. (2009), Table 6.

We first focus on the distribution of sales among deciles, in relation to 2012 data only.¹¹ Unfortunately, little data is available on the distribution of sales or exports among traditional firms for Australia (see next paragraph for an analysis of the limited data that is available). We therefore make comparisons with data that is available for firms in France and the US. Figure 7 illustrates the distribution of sales or exports among eBay sellers and eBay exporters, where we focus only on commercial sellers (exporters) with annual sales (exports) of at least AUD10,000 to make them more comparable with traditional firms. Clearly, sales are much less concentrated among the largest sellers, i.e., those in the first deciles. While the largest 10 percent of eBay sellers (exporters) have a share in overall sales (exports) of 46 percent, the equivalent shares among US and French exporters are 85 percent and 87 percent respectively.

To our knowledge, data for traditional Australian firms is not available in the same level of detail. However, data from the ABS (ABS, 2012c) allows us to calculate the share of overall exports made by the largest 10 percent of Australian exporters. As stated in the previous paragraph, on eBay the largest 10 percent of exporters have a share in total eBay exports of 46 percent, indicating that exports on eBay Australia are relatively dispersed. That figure is also similar for eBay exports in other countries, such as France, UK or Germany.

In contrast, for Australian traditional exporters, the largest 10 percent of exporters, which are those with exports above AUD1million each, account for 98 percent of all Australian exports, indicating that exports by Australian traditional firms are extremely concentrated.¹² Figures for traditional retail or wholesale exporters, which are more comparable with those of eBay sellers, give a similar picture. For those, the largest 10 percent of exporters account for around 80 percent to 85 percent of exports.¹³

¹¹ In other words, all firms and eBay sellers are split into ten equally large groups ("deciles"), according to their sales or export turnover.
¹² Source: calculations based on ABS (2012c), Tables 1.1 and 1.2. Note that the largest 0.85 percent alone account for 89 percent of all exports.
¹³ Source: calculations based on ABS (2012c), Tables 5.1. and 5.2.

Australia is not unique in having such a high degree of concentration among traditional exporters. Data on the market share of the largest 5 percent of traditional exporters among total exports is available for a number of additional countries. This is based on customs data collected by the World Bank (2012) in 45 developed and developing countries. While such data is not available for Australia, it is clear that the level of concentration on eBay is much smaller than in any of the countries for which traditional data is available, which makes it highly likely that this would also be the case for a comparison with Australian traditional data. Figure 8 presents the results of the comparison of export shares by the largest 5 percent of exporters. While the market shares (in sales or exports) of the 5 percent of the largest Australian eBay sellers (exporters) is "only" 51 percent and 35 percent respectively, the equivalent figures for traditional exporters are much higher in almost any country within the World Bank dataset. On average, across the 45 countries for which the World Bank has collected data, the largest 5 percent of exporters account for 82 percent of all exports. In New Zealand that number reaches 91 percent.

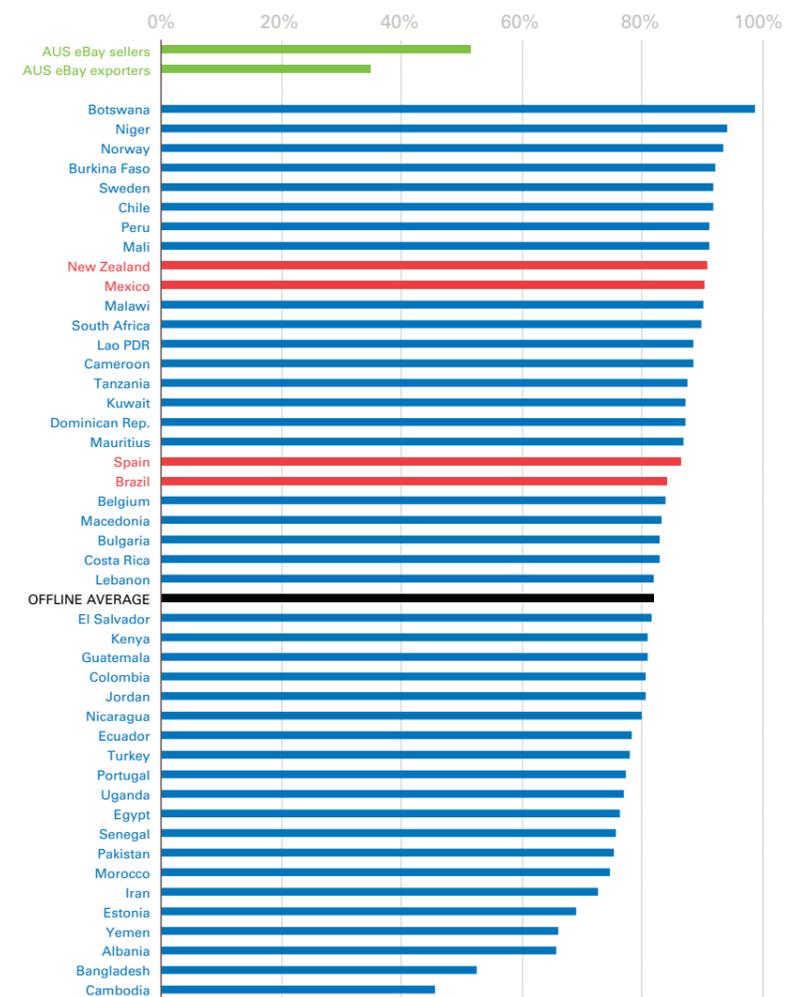
Another way to measure the degree of concentration among sellers is the so-called Hirschman-Herfindahl-Index (HHI). The HHI is a common measure of market concentration that is used by, for example, competition authorities.¹⁴ Its value can reach up to 10,000 for a maximum level of concentration. Usually, a level of around 2,000 or more is considered to be evidence for a high level of market concentration. The World Bank (2012) has calculated this index for the same set of 45 countries mentioned above, and finds an average concentration index of 482. For New Zealand, for example, the value is 660. The equivalent figure among exporters on eBay Australia is much lower at 29.¹⁵

Results indicate that commercial activity on eBay is much more evenly spread across market participants than in the world of traditional commerce, both in Australia and a wide range of other countries.

The fact that eBay is less dominated by very large sellers may be proof that eBay levels the playing field between small and large sellers, assisted by low entry barriers and high levels of competition.

¹⁴ The HHI is a widely used method to measure the degree of concentration, e.g., among firms in a market. It is calculated as the sum of squared market shares; i.e., $HHI = \sum s_i^2$. As is commonly done, we multiplied that value with 10,000. The HHI can thus be between 10,000/n and 10,000.
¹⁵ This number refers to all exporters with exports of at least AUD10,000. Using sales of sellers instead leads to an even lower HHI.

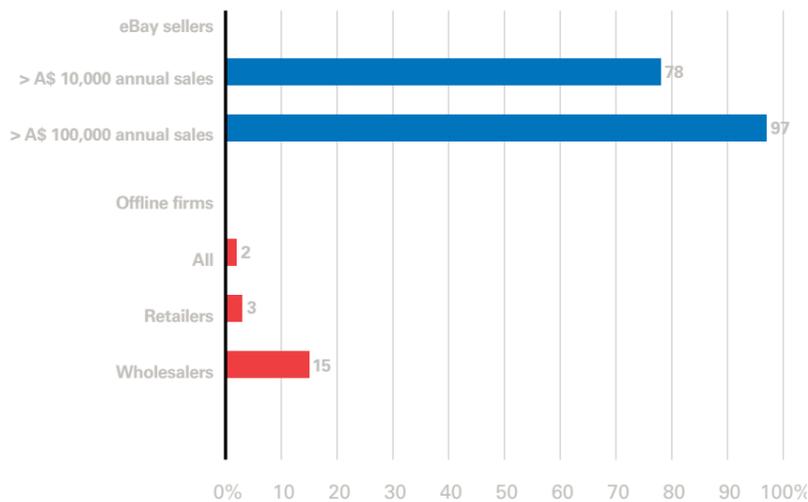
FIGURE 8: EXPORT SHARES OF THE TOP 5 PERCENT OF EXPORTERS – EBAY AND TRADITIONAL



Source: eBay: data for 2012, sellers with sales of at least AUD10,000 and exporters with exports of at least AUD10,000. Traditional: World Bank (2012). Major traditional markets are highlighted in red.

CASE STUDIES

FIGURE 9: **SHARE OF AUSTRALIAN EBAY SELLERS AND TRADITIONAL FIRMS THAT EXPORT**



Source for eBay: Sidley Austin calculations based on eBay data for 2012. Source for traditional: The total number of firms was taken from ABS (2012a, Table 1) and refers to the number of businesses active at the end of FY 2010/11. The number of exporters was taken from ABS (2012c, online data appendix, Table 5.1).

EBAY HELPS SELLERS TO REACH GLOBAL MARKETS

“Exporters” on eBay are defined as those sellers that sold at least one item to a foreign-based buyer in a given year.

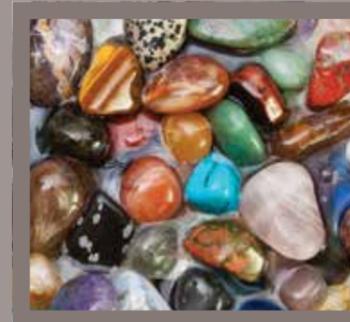
Focusing on data based on 2012, the share of sellers that are exporting is shown in Figure 9. Of very large sellers with annual sales of AUD10,000 or more, almost all ship overseas.

Only 2 percent of all registered businesses in Australia export. For traditional retailers, the type of firms that are most comparable to eBay sellers, that share is only slightly higher (3 percent). A higher share of traditional wholesalers export (15 percent). This is in complete contrast to our findings for eBay sellers, where even a substantial share of small sellers export, as do a big majority of “commercial sellers.”

Most traditional firms have been found to sell to a very small number of markets. (Figure 10). Among all sellers with annual exports of at least AUD10,000, the average number of 28 foreign destinations is much higher.

For traditional firms, the average number of destinations reached by Australian exporters can be calculated from ABS data (ABS, 2012c). eBay sellers can ship to customers in such a large number of markets, especially when compared to – usually much larger – traditional firms, most likely because by using eBay sellers face no fixed costs to enter a particular market. While traditional firms may have to actively seek new customers in a foreign market, get familiar with country-specific shipping and import conditions, and even set up a distribution network, eBay sellers typically simply upload their products on eBay without actively “targeting” a particular market. An exception to this scenario would be one in which sellers choose particular eBay sites on which to upload products or otherwise link listings to other sites.¹⁶ There are certainly still some barriers to overcome for eBay sellers, because international shipping can be more expensive and/or risky than domestic shipping. The same applies to payment and legal requirements in the destination market.

¹⁶eBay has made it easier for sellers in recent years to make their listings appear in search results on other sites. See, for example, a report by Tamebay on such a feature for UK sellers, who can have their offers listed on eBay.com.au (<http://tamebay.com/2011/05/greater-uk-us-visibility-on-ebay-australia.html>).



JUSTOPAL – ENTREPRENEUR

David Billingham, owner of the Justopal eBay store, comes from a family of miners, wholesalers, cutters and retailers who have been in the opal business in Australia since 1968.

In 1980, due to rising rent, salary costs and difficult economic conditions, they sold their retail store to focus more on wholesaling opals. Although the family loved wholesaling directly to customers, they missed the delight of engaging with customers through a retail channel. So in 1999 they decided to start selling on eBay.

Today Justopal’s target market is mainly the US, Russia, Japan and China. Listing internationally on the eBay US site has enabled David’s business to reach millions of overseas customers, beyond the 7 million Australians who visit eBay.com.au monthly.

“Listing purely on eBay Australia would be like selling Marmite on eBay Australia; your target audience just isn’t there!” David explains. “By listing internationally through eBay, I no longer have to rely on US and Japanese tourists walking into my store. Rather, I can now reach overseas customers by leveraging eBay’s international sites.”



BESTAUCION – MERCHANT

Alvin Ye, owner of the *bestauction* eBay store, started selling posters through eBay AU in 2010. He found the poster market in Australia to be lucrative yet stable, and he was eager to reach international customers to expand his business.

A quick look on market research site Terapeak revealed that there was higher demand for Alvin’s posters in the US and UK than Australia, especially for his rare, niche posters. So he began listing on the US and UK eBay sites, finding success particularly through his UK listings. His business grew rapidly. His AU store began drawing more and more traffic. “Only eBay could draw the amount of overseas traffic I needed for my business,” says Alvin.

Alvin’s UK business is now doing so well that he is planning to set up a permanent team in London so he can provide more efficient and cost effective service to his overseas customers.



BOOTS4ALL – LARGE MERCHANT

Boots4all is the eBay channel for proud Aussie Company “All Things Australian” which operates in the footwear industry. The company has three retail stores in Melbourne and Sydney and various standalone websites. Their range of boots include UGG Australia, EMU Australia, Redback 100% Australian Made, Mongrel, Blundstone and Oliver.

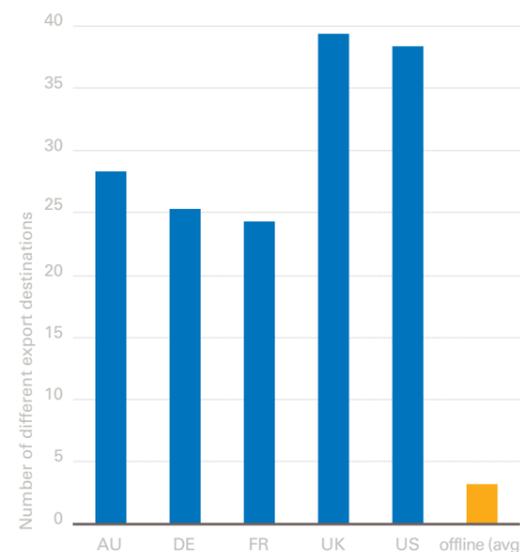
Ten years ago, the company started listing internationally through a non-eBay platform. However since October 2011, it began listing internationally on eBay. In founder David O’Connor’s words: “I found the eBay experience to be a lot better as it’s easier to work with than our old platform. eBay has expanded our business considerably. Our experience in dealing internationally through eBay benefits us greatly as it’s such a major platform – an ideal channel to serve our international market!”

FIGURE 10: NUMBER OF DESTINATIONS REACHED BY AUSTRALIAN EBAY EXPORTERS

Sub-group of eBay exporters	Number of destinations
Exporters with:	
≥ 25 annual export transactions	18.8
≥ 50 annual export transactions	24.1
≥ 100 annual export transactions	30.3
≥ A\$ 10,000 annual export sales	28.4
≥ A\$ 100,000 annual export sales	58.5
≥ A\$ 1,000,000 annual export sales	115.0

Source: Sidley Austin calculations based on eBay AU data for 2012.

FIGURE 11: NUMBER OF DESTINATIONS REACHED BY EBAY AND TRADITIONAL EXPORTERS



Source: Sidley Austin calculations based on eBay data (AU: 2012, US: 2010, others: 2011). Only sellers with exports of at least USD10,000 are considered. Using other thresholds leads to qualitatively similar results. The traditional data is an average taken from the World Bank dataset (World Bank, 2012), and is similar (2.7) for Australian traditional exporters.

Summing up these results, we find that eBay provides retailers with ample opportunities to serve foreign markets, and that exporting is much easier online. Only 2 percent of Australian businesses export, and they ship on average only to three different destinations. The contrast to eBay trade is striking: among commercial eBay sellers – those with annual sales of AUD10,000 or more – almost all (78 percent) export. Those with annual export sales of AUD10,000 or more ship to 28 destinations.

These figures illustrate the vast potential that eBay represents for traditional retailers. eBay sellers can widen their customer base to a global level and sell products to many more countries than traditional firms, even when they are much smaller enterprises.

EBAY SELLERS DIVERSIFY, THEN SPECIALISE

In this section, the degree to which Australian eBay sellers diversify their sales across product categories is shown. Sidley Austin distinguishes between 37 product categories. As indicated in Figure 12, larger sellers sell more product categories. For example, sellers with annual sales of at least AUD10,000 sell products in 5.2 categories, and that average increases to 7.3 for those with annual sales of more than AUD1 million. These numbers are roughly in line with eBay numbers for sellers in other countries (Germany, France, UK and US).

Another interesting result of the analysis is that eBay sellers tend to specialise once they reach a certain size. In other words, successful eBay retailers sell fewer products as they grow.

This can be shown in two ways. First, the analysis takes a more precise look at sellers in 2012, and compares the number of product categories sold for sellers of different sizes, ignoring sellers with fewer than 25 transactions.¹⁷ By dividing the remaining sellers – about 146,000 – into per mille (i.e., into 1,000 equally sized groups of sellers, sorted by annual sales value), the average number of product categories sold for each of these groups can be calculated. The results are shown in Figure 13. Clearly the number of product categories that sellers offer first

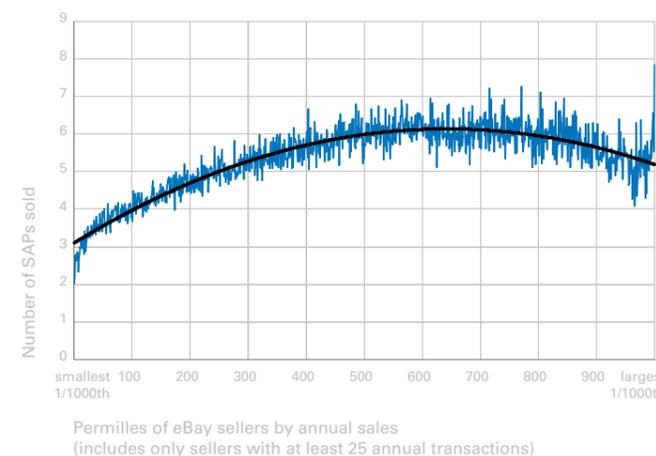
¹⁷Including those small sellers does not change the result of the analysis.

FIGURE 12: NUMBER OF PRODUCT CATEGORIES SOLD BY AUSTRALIAN EBAY SELLERS (2012)

Sub-group of eBay sellers	Number of categories sold
Sellers with:	
≥ 25 annual transactions	5.4
≥ 50 annual transactions	5.8
≥ 100 annual transactions	6.0
≥ A\$ 1,000 annual sales	4.1
≥ A\$ 10,000 annual sales	5.2
≥ A\$ 100,000 annual sales	5.5
≥ A\$ 1,000,000 annual sales	7.3

Source: Sidley Austin calculations based on eBay Australia data (2012).

FIGURE 13: NUMBER OF PRODUCT CATEGORIES SOLD BY SIZE OF SELLERS (2012)



Source: Sidley Austin calculations based on eBay Australia data (2012). Only sellers with at least 25 transactions were considered. These were split into 1,000 equally large groups, based on annual sales value. Each group consists of 146 sellers. The chart shows the average number of product categories sold for each of these groups.

increases with their size, but for sellers above a certain size, fewer products are sold. That threshold appears for sellers with annual sales above AUD4,000.¹⁸

How can this “pattern of specialization” be explained?¹⁹ One reason may be that there are economies of scale to be realized in selling particular products, and sellers then focus on these products once they grow, discarding those that are least profitable. To become a large and profitable seller of a particular product usually requires special focus and specific knowledge. Becoming an expert in a very wide range of products is likely too difficult for most sellers.

Another interpretation of this behavior of eBay sellers may be that the very high level of competition between retailers on eBay forces large sellers to specialise, since only specialised companies are able to remain competitive. Focusing on many products at the same time would drive sellers out of the market; they would – at least on average – find it too difficult to remain competitive in all product categories at the same time.

eBay sellers can grow by increasing their customer base – in principle across the whole world. “Going international” may be more profitable than increasing the scope of products they sell. They thus specialize and become expert sellers in fewer products, offering more specialised customer service to a wider range of clients. In contrast, traditional retailers cannot widen their customer base as easily (unless they open branches in other locations) and may thus rather grow through selling a wider variety of products.

This section has reported on the degree to which eBay sellers sell products of a wide range of product categories. Even small sellers tend to offer many product categories, and a comparison with data for traditional exporters reveals that they sell fewer items, albeit in much larger volumes.

The largest eBay sellers show an interesting pattern of specialising in fewer product categories – evidence that eBay allows sellers to grow by reaching more customers while remaining focused on products that they know best.

¹⁸The AUD4,000 threshold is, of course, an average. Not every seller above this threshold sells fewer categories

¹⁹Including those small sellers does not change the result of the analysis.

EBAY PROVIDES ECONOMIC WELFARE GAINS



eBay allows people to buy and sell **products that could not be traded through normal retail channels.**



A study of 56 countries shows a gain of 29% of 'real GDP' if all trade occurs on eBay. For Australia, however, **the gain is 50% of GDP, one of the highest estimates for all countries.**



For people living in remote areas, **modern ecommerce platforms make participation in trade activity much easier.**

Lower trade costs translate to consumer benefits.



While lower online prices provide consumer benefits, **they can also have an effect on traditional retail prices, providing further benefits indirectly.**

>25%

A key benefit is lower prices for consumers. **Average price savings for Australian consumers can be 25% of traditional prices or more.**

FINDINGS ON WELFARE GAINS

In this chapter, the potential welfare effects for the Australian economy that can be derived from international trade on eBay are analysed, using a methodology that had previously applied to calculate such welfare gains across a sample of 56 countries.²⁰

eBay (and other online platforms that allow essentially everybody to buy and sell almost any product, and with low entry barriers) provides benefits to consumers, entrepreneurs and the economy as a whole that other ecommerce providers, such as large online stores, do not offer. In particular, eBay allows people to buy and sell products that could not be traded through normal retail channels. This applies, for example, to second-hand products.

A study by Allen Consulting (2011) summarises some previous findings on a variety of sources of welfare gains that can be derived from ecommerce. According to that study, one key benefit is lower prices for consumers. Citing previous studies, the authors argue that average price savings for Australian consumers can be 25 percent of traditional prices or more.

Price comparisons have to be interpreted cautiously, but it is fair to assume that significant consumer benefits could be derived from such savings. In a detailed study in which eBay and traditional prices for products were compared in the UK, France and Germany, the average savings were found to be 17 percent, and absolute benefits of EUR were 1.1 billion.²¹ Allen Consulting (2011) also distinguishes between direct and indirect price effects. While lower online prices provide direct consumer benefits, such prices can also have an effect on traditional retail prices and thus provide further benefits indirectly.

Another type of economic benefit can be derived from "market creation," which is linked to a reduction in search costs. Allen Consulting (2011) argues that "the ability to connect vast geographic areas enables the creation of markets for goods that would otherwise have non-existent or limited markets, particularly for rare and second-hand items."

In other words, eBay – and this is a particular benefit generated by open marketplaces rather than ecommerce in general – allows sellers and buyers to trade products that would otherwise never have been traded because of high search costs caused by, among other factors, geographic distance. A transaction between such eBay users creates economic benefits. In economic terms, a buyer purchases an item for less than he would be willing to pay (the so-called *reservation price*), which creates a *consumer benefit*. At the same time, a seller can sell the item for more than what the item is worth for her (i.e., the *costs* for her), which creates a *producer benefit*.²² The economic welfare gain of such a trade can then be derived from adding up these benefits. What is crucial is that many transactions on eBay, especially for used and/or rare items, would never have occurred without eBay or similar platforms.

Allen Consulting (2011) highlights another type of economic benefit that ecommerce can provide, and which may be particularly relevant for Australia, namely services to remote areas. Consumers in such areas have limited access to traditional retail outlets, which can mean that choice of products can be much more limited – many products may simply not be available.

While mail-order services may have already provided access to a wider variety of products many years ago, modern ecommerce platforms make the participation in trade activity much easier.

Not only can choice and access be limited in such areas – prices may also be higher because the lower density of retail stores in remote areas also reduces competition. Not surprisingly, according to Allen Consulting (2011) there is evidence that Australian eBay users in remote areas spend more on eBay than other users. Not only can *consumers* in remote areas gain from eBay. *Retailers* can gain equally, assuming that the postal system works smoothly and is not significantly more expensive to use from remote areas, by selling items to consumers in the whole country and even internationally.

²⁰ See *Enabling Traders to enter and grow on the Global stage*, http://www.ebaymainstreet.com/sites/default/files/eBay_Enabling-Traders-to-Enter-and-Grow-on-the-Global-Stage.pdf

²¹ This absolute number, if calculated today, would certainly be much higher because sales on eBay have increased since then.

²² Theoretically, the reservation price could equal the cost (or, to be precise, their difference may just be enough to cover transaction costs for shipping and eBay fees). In such a case, there would be no economic benefit.

WELFARE GAINS FROM INTERNATIONAL TRADE ON EBAY

Sidley Austin's estimate is based on gains that can be derived from lower international trade costs, based on data for international trade flows through the eBay platform and across 56 countries. Using a hypothetical scenario under which *all trade* would be conducted as efficiently as trade currently undertaken across eBay, it has estimated the size of the resulting welfare gains for each of these economies.

For eBay trade flows, geographic distance between countries had only a third of the trade-reducing effect compared to the effect on traditional trade flows. Trade on eBay happens as if the world was almost "flat". Sidley Austin made a similar finding when analysing eBay exports and imports between Australia and all its trading partners.²³

As explained above, the trade-reducing effect of distance and other indicators can be interpreted as a measure for trade frictions, which can include shipping costs (which obviously increase with distance), and other frictions such as search costs. There may be less trade between distant countries, or countries that do not use the same language, because it is more difficult for a prospective exporter to engage with a prospective importer. On eBay, these frictions appear to be much lower.

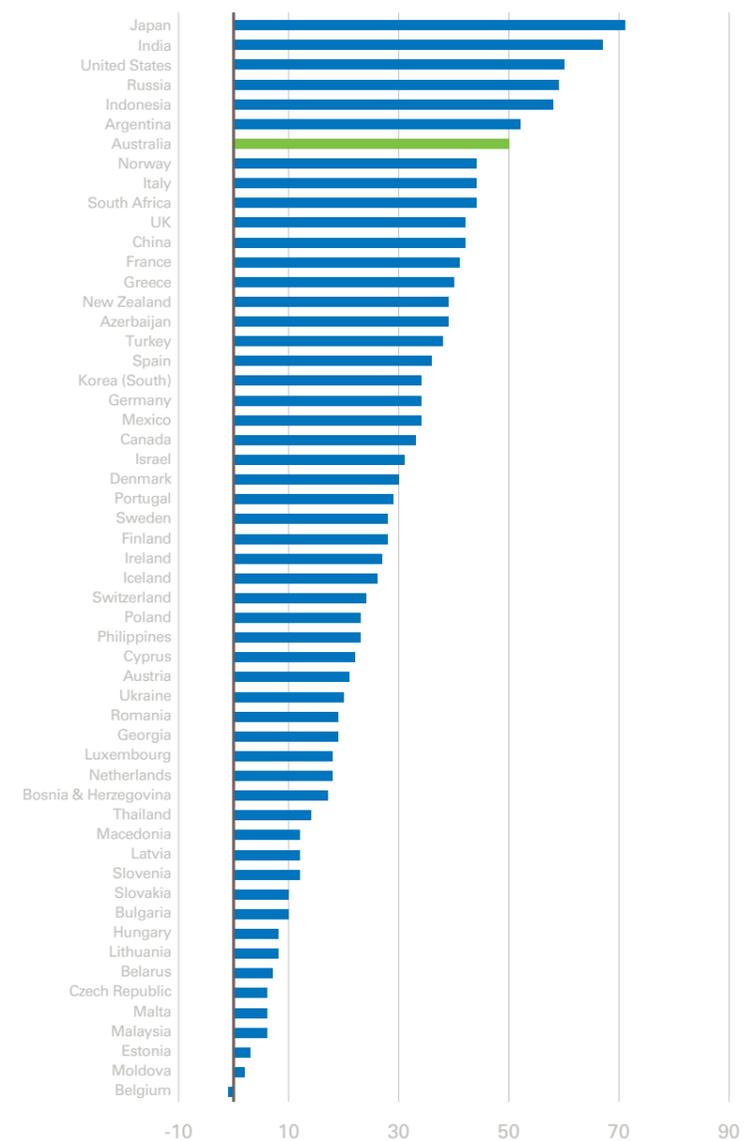
The low trade costs detected on eBay can be used for an interesting experiment: what would happen to an economy if traditional trade frictions were as low as they empirically prove to be for online trade? To assess this question, we created a counterfactual scenario in which *all* global trade flows were assumed to be as little constrained by distance as they are currently on eBay.

One may describe this scenario as one in which "everything is traded on eBay." The welfare gains that can be derived then are representative of the potential gains not yet reaped by consumers because they do not yet trade everything through eBay. Alternatively (and probably more realistically), one may depict this scenario as one in which "everything is traded as efficiently and in as frictionless a way as products are traded on eBay".²⁴

Next, the effect of this hypothetical scenario is assessed by "shocking" traditional trade flows through a reduction in trade frictions – approximated by the degree to which distance lowers trade costs – to those at the level of eBay. This changes the trade patterns between countries. For example, if the trade-reducing effect of distance becomes much smaller, then distant countries will trade more, and countries close to each other will trade relatively less. Crucially, one assumption in the model is that lower trade costs increase the overall share of imports in consumer expenditure. Thus, with lower trade frictions, countries would import more, and export more.

The precise estimate of welfare gains follows a methodology developed recently by Arkolakis et al. (2012). In their paper, the authors have shown that welfare gains, measured as gains in real income,²⁵ can be calculated from the change in the share of imports in total expenditures. If trade costs fall, then the share of imports in total expenditure increases. We use a change in trade costs derived from a specification of the gravity equation for the 62 countries for which we have data, in which we found that distance matters about "55 percent less" on eBay compared to traditional trade.

FIGURE 14: WELFARE GAINS BY COUNTRY



Sources: Sidley Austin calculations based on eBay dataset for 56 countries.

To translate these changes in trade costs into changes in the share of imports in total expenditure also requires calibrating all parameters in the model in such a way that there is an equilibrium (e.g., global exports equal imports and total wages equal total expenditure).

The result of this calculation leads to new shares of imports in overall expenditure, which, using the methodology proposed by Arkolakis *et al.* (2012), allows for a calculation of welfare gains for each country. Given that a *reduction* in trade costs is simulated, the resulting change in welfare will typically be positive. They are measured as a percentage of GDP and in "real terms"; i.e., adjusted for changes in prices. Note also that these welfare gains should be thought of as the average gain for a representative consumer.

The results for estimated welfare gains show that gains can be substantial. On average, a gain of 29 percent of "real GDP" across the 56 countries was the result²⁶. Figure 14 reports that the largest winners under this hypothetical scenario are Brazil, Japan and India, and countries with only fairly low predicted welfare gains are Malaysia, Estonia and Moldova. Belgium is the only country for which the calculations result in a welfare loss, albeit only of 1 percent of GDP. **For Australia, however, a gain of 50 percent of GDP is estimated, which is one of the highest estimates for all countries.**

How can one explain the particularly large welfare effects for Australia? One explanation is that if distance becomes less of a restriction for trade, it should be mostly of benefit to countries that are geographically remote, like Australia and unlike, say, many neighboring countries in Europe.²⁷ If a country is far from potential trading partners, reducing the effect of distance should obviously have a larger impact on them than countries that are very close to their trading partners.

²³Note that the welfare analysis requires the analysis of trade flows among a wider set of countries, not just between Australia and other countries.

²⁴Data is only used and considered for trade in goods. Additional welfare gains could be derived from trading services through online channels.

²⁵Gains in "real income" (equivalent to real GDP) are gains that are adjusted for changes in the price level. Such gains could therefore occur from a rise in nominal income when keeping prices fixed, but also from a decrease in prices, keeping nominal income fixed (or a combination of both).

²⁶For six (mostly small) countries of the 62 countries, welfare gains could not be calculated because import shares over expenditure was above 100 percent, which violates some assumptions of the model.

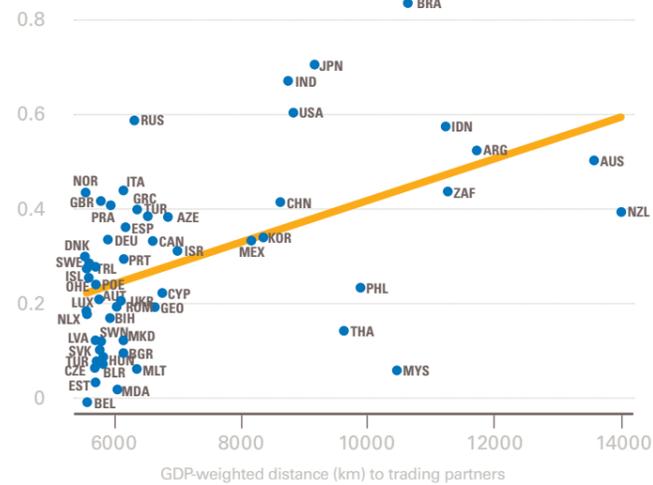
²⁷As a measure of "remoteness," was used the average distance to each trading partner, weighted by the GDP of partner countries. This indicator was calculated for all 189 countries and territories for which there was such data, and find that Australia ranks second. It is the most remote country after New Zealand, with a weighted average distance to trading partners of around 13,500 kilometers, roughly the distance between Australia and Mexico.

Figure 15 confirms that this is the case. It illustrates graphically how remoteness relates to estimated welfare gains. This is further illustrated by the straight line that shows the average effect of remoteness

Another reason that Australia appears to be one of the largest winners in this the hypothetical scenario is that it engages, at present, in little trade *relative* to overall GDP. The share of trade over GDP (i.e., the sum of total exports and imports as a ratio of GDP) is a common measure of the extent to which countries rely on foreign trade. Countries that trade little under the status quo – compared to their overall economic size as measured by GDP – can gain more from lower trade costs because this will help increase imports and exports. Intuitively, such countries have a higher potential for being better integrated into the global economy, which brings welfare gains in lower prices and more choice for consumers. In contrast, countries that are already heavily integrated – i.e. those whose trade/GDP ratio is already very high – can gain less from further integration.²⁸

The relationship between trade/GDP and the estimated welfare gains is depicted in Figure 16. This chart illustrates that there is clearly a negative relationship between trade/GDP and welfare gains. Countries that trade more have smaller welfare gains. The straight line illustrates the average effect. Belgium, which trades the most, also has the lowest welfare gains. In fact there would even be a small welfare loss. In contrast, countries that trade less, such as Brazil, the US, India, Japan and Australia, would see the largest welfare gains.

FIGURE 15: WELFARE GAINS VERSUS REMOTENESS



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