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Advancing Growth

Prepared for:
The International Powered Access
Federation



IPAF
Powered Access
Rental Market Report
USA – 2013

April 2013



IPAF Powered Access Rental Market Report - USA

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IPAF Powered Access Rental Market Report – USA

FOREWORD

IPAF

- ❑ The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide. IPAF is a non-profit member organization that represents the interests of rental companies, manufacturers, distributors, users and training companies. It was set up in 1983 and celebrated its 30th anniversary in 2013.
- ❑ The IPAF training program for platform operators is certified by TÜV as conforming to ISO 18878. More than 100,000 people are trained each year through a worldwide network of over 500 IPAF-approved training centers. Successful trainees are awarded the PAL Card (Powered Access License), the most widely held and recognized proof of training for platform operators. In North America, training is managed by IPAF's North American subsidiary, AWPT.
- ❑ Membership of IPAF is open to users of platforms, manufacturers, distributors, rental and training companies. Members enjoy access to practical information and a growing portfolio of member services. They also have the chance to influence the legislation and regulations that govern platform use. More information can be found at www.ipaf.org.
- ❑ IPAF has approximately 1000 members.

Additional copies of this report can be ordered at www.ipaf.org or from your nearest IPAF office.

IPAF has also published the IPAF European Powered Access Rental Market Report 2013 – details available at www.ipaf.org or from your nearest IPAF office.

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Ducker

- ❑ Ducker Worldwide is a primary research-led industrial market research and consulting company, dedicated exclusively to ad hoc business-to-business research and particularly specializing in the markets for construction equipment and materials both in Europe and the US.
- ❑ Ducker benefits from solid industry experience and a highly international team with the ability to survey global markets at a local level:
 - Product and industry expertise: experience in the AWP and equipment rental markets through several projects covering access equipment and other types of construction machinery at all levels of the value chain including rental as well as distribution and contracting.
 - International approach applied locally: with a team of permanent native consultants working out of offices that reach across the US, Europe and Asia, Ducker prides itself on the fact that all fieldwork is completed in the respondent's native language by in-house consultants and by Ducker's internal multi-lingual call-centers.
 - Methodological expertise: on-going involvement in strategic consulting within areas such as market sizing and segmentation, distribution structure, competitive positioning, customer satisfaction or market opportunity and new product entry assessments for a variety of products within the global construction and transportation industries amongst others.
 - Quality charter: Ducker Worldwide is certified as conforming to ISO 9001 and works to the guidelines of the ESOMAR ethics standards.
- ❑ More information on Ducker can be found at www.ducker.com.

This report was produced by the European headquarters of Ducker Worldwide in cooperation with its US headquarters.

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This study assesses the AWP (Aerial Work Platform) rental market value for the US over a six-year period. A separate report is available covering the European market.

- ❑ Main objectives:
 - 2012 AWP rental market value and fleet size.
 - Trends and dynamics (2008–2014).
 - Operational indicators (investment, age of fleet, application).
- ❑ New in this report:
 - New for 2013 is an estimate of the size of the AWP rental fleet worldwide, with a breakdown by region and by machine type.
 - Rental companies were asked about their fleet’s compliance with Tier4.
- ❑ The current study does not examine rental company profitability.
- ❑ The study covers the time period 2008-2014, with particular focus on 2012.
- ❑ The conducting of all interviews in the first two months of 2013 has allowed for primary data collection on the full previous year, thus providing for more specifically targeted and up-to-date information than would have been available from any statistical sources.

Products and Countries

- ❑ The current study focuses on powered access equipment, i.e. aerial work platforms (AWPs), also called mobile elevating work platforms (MEWPs). It includes the full range of powered access equipment (all sizes and types) except mast climbing work platforms (MCWPs).
 - Included are: all booms, scissor lifts and vertical masts.
 - Both articulating and straight telescopic booms.
 - Self-propelled as well as vehicle-mounted, push-around, trailer-mounted/towable, hoists.
 - Excluded are telescopic material handlers, forklifts, cranes, mast climbing work platforms and equipment owned by non-rental companies.
 - This year, a product segmentation between booms and scissors has been included in the report.
- ❑ This report focuses on the US domestic market.
 - No regional segmentation is included.

Target Companies and Respondents

- ❑ The main source of information for this study is primary research through telephone interviews. Organizations interviewed for this study include rental companies and other industry experts:
 - Rental companies:
 - Specialist AWP rental companies (34% of the market in value): AWP accounts for more than 50% of total rental revenue.
 - Generalist rental companies (66%): AWP rental revenue accounts for 50% or less of total rental revenue.
 - From rental companies interviewed, on average, AWP rental revenue represents 55% of their overall rental revenue.
 - National rental associations.
 - Industry experts.
- ❑ In addition, an emailing was sent to gather information via a self-administered web questionnaire.
- ❑ Secondary data was also gathered to validate major market trends identified.
- ❑ Only persons with input in machine selection or management were qualified as respondents. Recurrent respondent job functions include in particular Owner, Sales and Technical Manager, Purchasing Manager, Fleet Manager, Branch Manager or Operations Manager.
- ❑ Ducker and IPAF would like to thank all industry representatives who have been available for interviews and whose kind assistance made it possible to conduct this research.
- ❑ IPAF and Ducker would also like to thank Murray Pollok, Editor of *International Rental News* for his contributions and commentary on the current rental market.

Definitions

- ❑ AWP Rental revenue:
 - Includes for example: machine rental rates, machine repair, support (e.g. fuel services), transportation/delivery, training, damage waiver, operator charges.
 - Used equipment sales are excluded from the AWP rental revenues reported.

- ❑ Specialists vs. Generalists
 - For specialists: AWP rental revenue is above 50% of total rental revenue.
 - Generalists: AWP rental revenue is equal to or below 50% of total rental revenue.

- ❑ Re-rental:
 - Rental by one rental company from another rental company.

- ❑ Utilization rate:
 - Physical number of machines out on rent as a percentage of the total number in fleet at any given time.

- ❑ Average age of fleet:
 - Overall average age of the fleet in 2012, including machines that underwent refurbishment/remanufacturing.

- ❑ Rental rate:
 - Corresponds more to net prices than list prices. Directly linked to the rental revenue.
 - The dollar amount the customer agrees to pay for possession and use of a machine.



IPAF Powered Access Rental Market Report – USA

EXECUTIVE SUMMARY

AWP Rental Market Situation at End 2012

- ❑ Confirming our 2011 forecasts, the US AWP rental market experienced robust growth in 2012 (+6%) to reach approximately \$6.6B.
- ❑ In order to increase revenue, AWP rental companies chose to increase rental rates (+3%) at the expense of utilisation rates (-2pts). This strategy is expected to continue in 2013.
- ❑ While rental companies had been extremely cautious to limit fleet growth in 2010 and 2011, 2012 saw the return of fleet expansion (+6%). Fleet is expected to continue to grow in 2013.
 - Accordingly, in 2012, investment significantly increased for the first time since the recession (2008).
 - Rental companies report that a focus on specialist equipment such as smaller scissors or very-high booms.
- ❑ The forecast for 2013 and 2014 is positive in the US, with similar revenue growth as well as a continuous increase in rental rates and fleet size.
 - Tier 4 compliance is expected to have a positive effect on the rental market as Tier 4 machines are more expensive to acquire and more costly to manage. Renting these machines instead of purchasing will be the best solution for many companies.

Canadian AWP Market

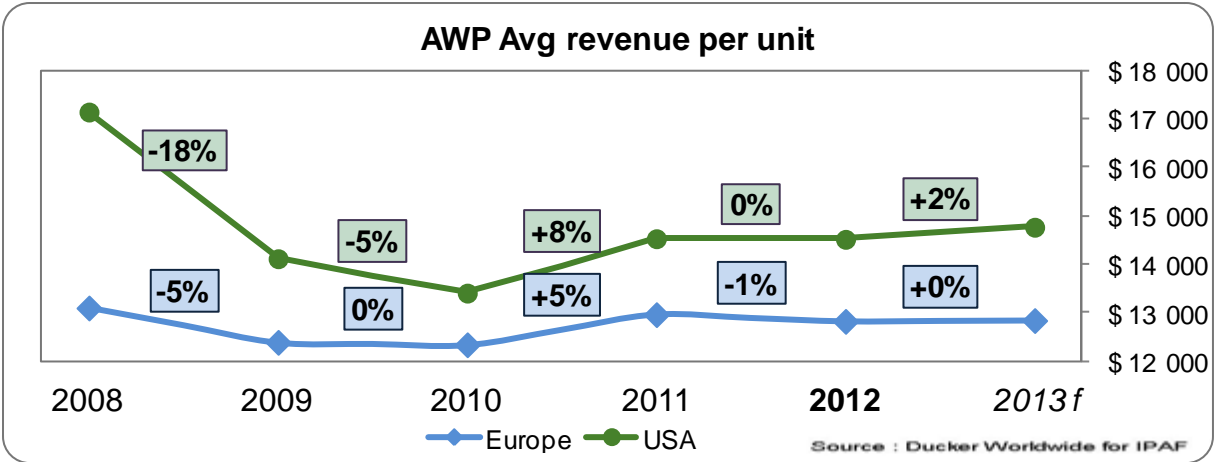
- ❑ In 2012, the Canadian construction market did not experience a significant downturn as in 2009 or 2010, thanks to the strength of the gas exploration sector.
- ❑ In both 2011 and 2012, the Canadian AWP rental market is reported to have experienced 5% growth.
- ❑ In 2012, rental rates remained relatively stable in Canada.
- ❑ It is expected that the Canadian market will continue to experience single-digit growth, below 5%, in 2013 and 2014.
- ❑ In 2012, several rental companies in Canada acquired used equipment from the US as AWP manufacturers could not deliver and/or had very long lead-times.

Comparison – USA vs. Europe

Region	2012 revenue growth	2012 revenue	2012 fleet size growth	2012 Fleet size	Utilisation rate growth	Rental rate growth
USA	+ 6%	\$ 6.6Bn	+ 6%	454 431	- 2 pts	+ 3%
Europe*	+ 0%	\$ 2.9Bn	+ 1%	227 920	- 1 pt	+ 0%

US rental companies have been more dynamic in managing rental rates than their European counterparts.

2009 and 2010 saw strong deterioration in the average revenue per unit due to drastic rental rate reductions. However, the economic rebound allowed US rental companies to start pushing rates in 2011 and to continue increasing them since. Rental companies in Europe have remained extremely cautious on rental rate improvement, thus limiting revenue per unit growth.



Worldwide MEWP Rental Fleet Size is estimated around 950,000 units.

USA*	
Articulated Booms	67 400
Straight Booms	136 800
Scissors	255 250
Others	51 050
Total	510 500

*Includes USA + Canada

ASIA - PAC	
Articulated Booms	11 600
Straight Booms	21 550
Scissors	48 600
Others	36 750
Total	118 500

EAME	
Articulated Booms	76 350
Straight Booms	37 600
Scissors	136 750
Others	34 200
Total	284 900

Latin America*	
Articulated Booms	4 600
Straight Booms	10 750
Scissors	14 100
Others	2 550
Total	32 000

*Includes Mexico

Others include: vertical lifts, vertical masts, vehicle-mounted booms.

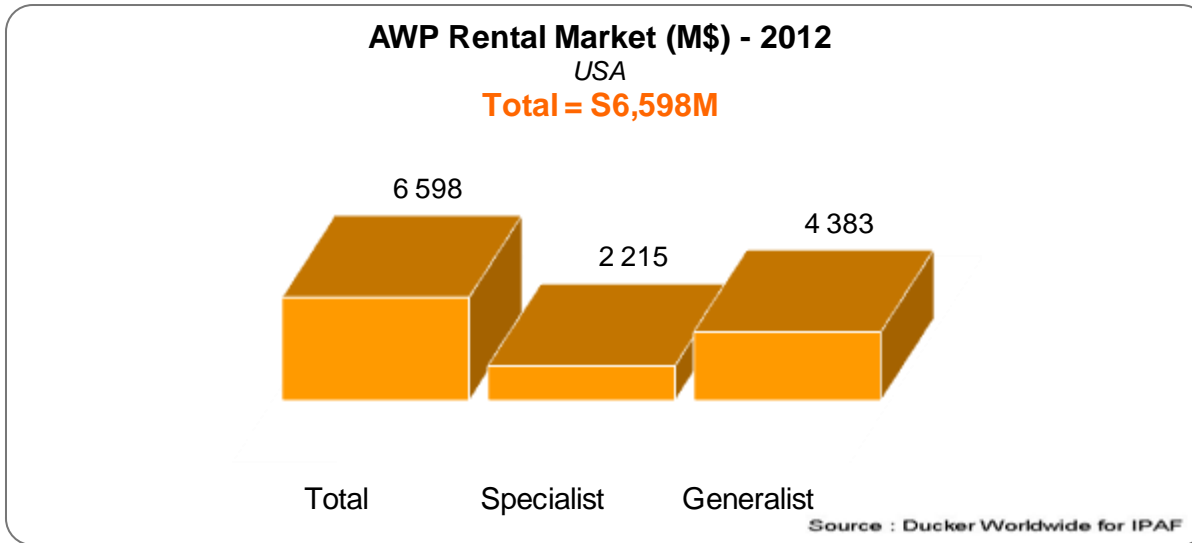
Note : Chinese data (included in Asia) exclude local unidentified Chinese brands which are negligible as of today



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MARKET SIZE 2012

The total AWP rental market value in 2012 in the US is estimated at approximately \$6.6B



- ❑ The US AWP rental market continued its recovery in 2012.
- ❑ Rental companies that have an AWP fleet have seen the share of AWP rental revenue vs. overall rental revenue increase since 2010. Especially in generalist rental companies. This might be explained by the fact that AWP equipment suffered less from the recession than other equipment, thus gaining importance in company revenues.
- ❑ Market structure remained stable in 2012. The US market is dominated by large generalist companies.

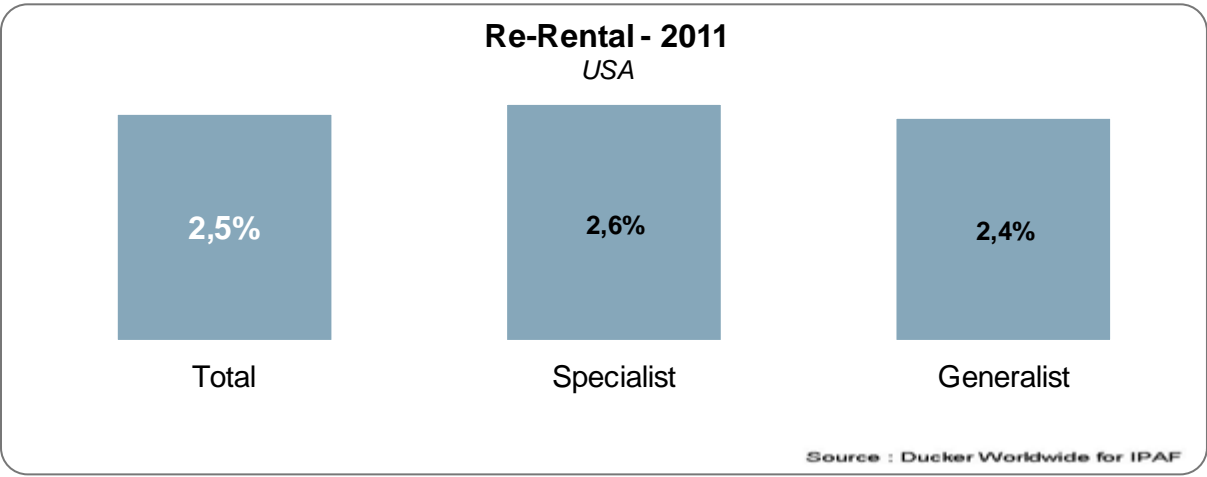
	Total	Specialist	Generalist
Rental. Rev. as % of Total Co. Rev.	64%	69%	62%
AWP Rev. as % of Total Rental Rev.	55%	85%	40%
AWP Rental. Rev. as % of Total Co. Rev.	31%	59%	25%



Re-rental, i.e. rental by one rental company from another, remained stable at a very low level and only represented around 2.5% of the AWP rental market.

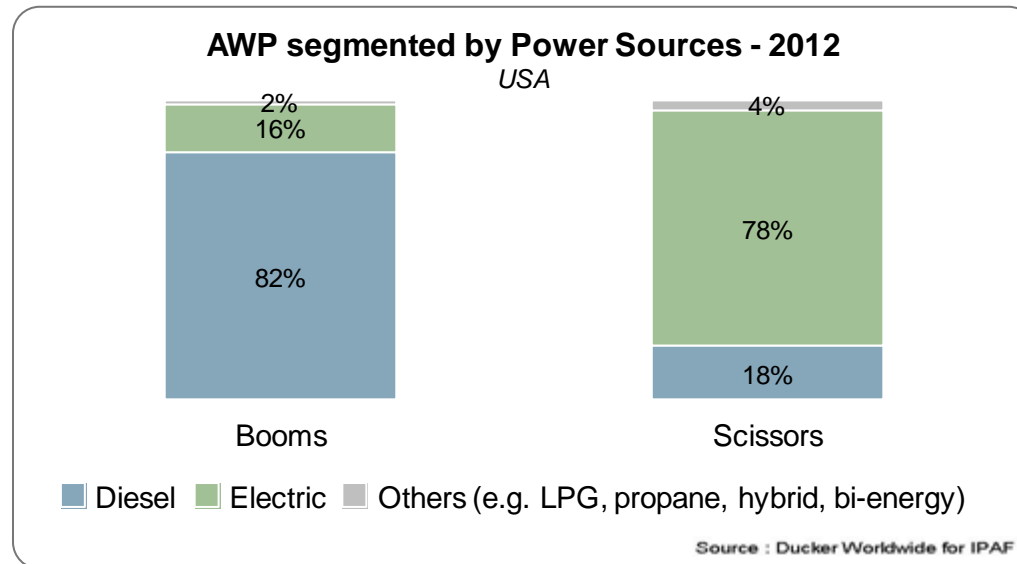


All re-rental amounts have been eliminated from totals expressed in this report



More than 80% of the US boom fleet is diesel, while the vast majority of scissors are electric. Other power sources remain limited in both markets.

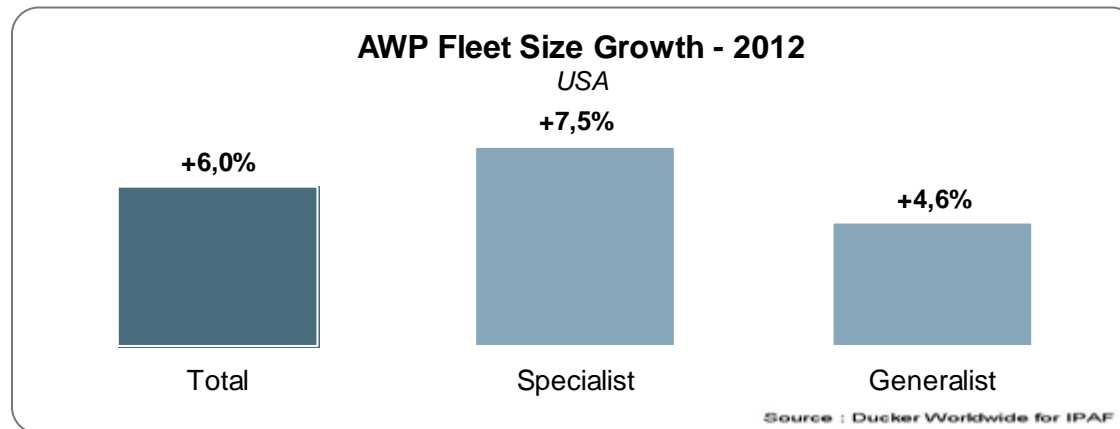
- ❑ Less than 10% of US rental companies' AWP fleet is compliant with new Tier 4 engine requirements.
- ❑ However, Tier 4 regulations are expected to act in favour of rental penetration. Compliant machines are more expensive and require specialist maintenance, end-user companies will most likely turn to rental as opposed to acquisition.



% of fleet powered by electric vs. diesel engine.

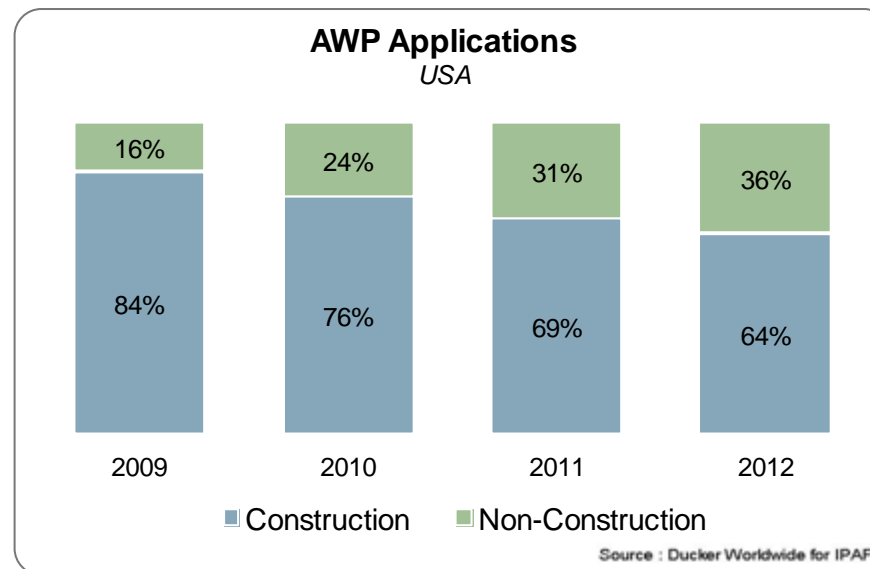
The US AWP fleet increased significantly in 2012, slightly more for specialists than for generalists.

- In 2012, for the first time since the recession, rental companies (primarily specialists) have started to invest heavily in fleet expansion programs.



Rental companies consider the diversification of their customer base a safe strategy for growth.

- Since the US recession, rental companies have progressively reduced the share of their business in construction applications, targeting other activities such as industrial, maintenance, utilities, leisure, events, etc.



Share of rental revenues

Non-construction includes property care, maintenance, cleaning, utilities, events.

Construction includes new build and renovation; including all types of building, also industrial

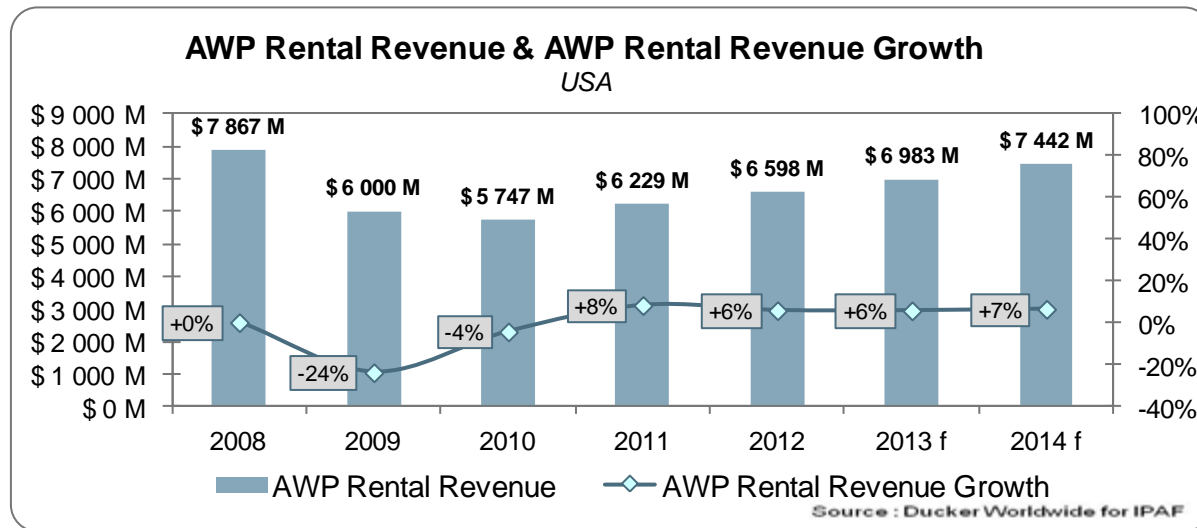


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MARKET DYNAMICS 2008-2014

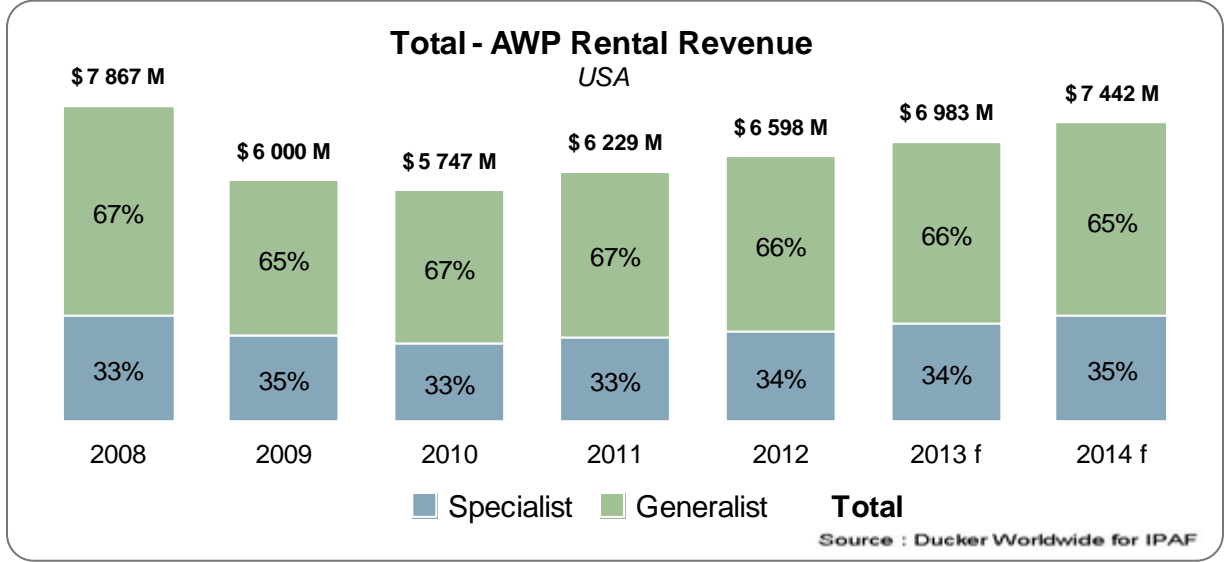
In 2012, the US AWP market confirmed its recovery with solid growth. This trend is expected to continue in the next two years.

- ❑ Economic recovery has seen the construction market experience a strong increase (+10%), and US GDP improving in 2012. Both construction and non-construction sectors drove market growth in the AWP sector.
- ❑ Rental revenue growth is reinforced by the increasing shift from AWP fleet ownership to rental.
 - AWP purchase and maintenance costs have risen, making rental more cost efficient than acquisition. Rental companies see increased interest in fleet outsourcing (rental) as it frees up capital and increases flexibility.



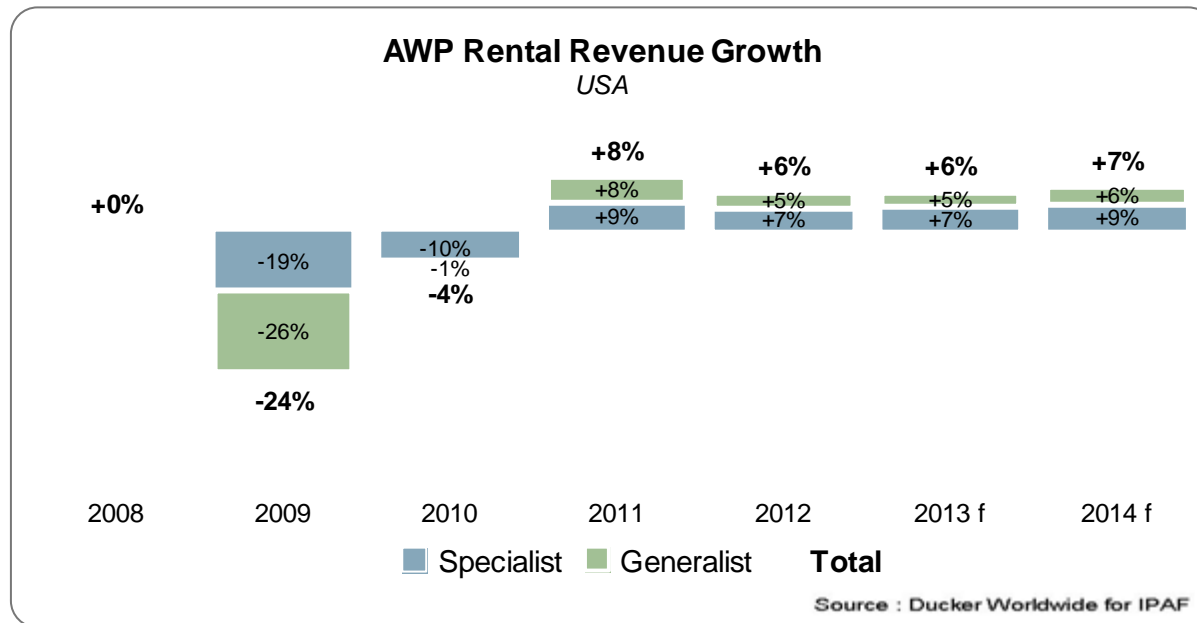


The market shares of generalists and specialists remained relatively stable as the market grew. Specialists still account for one third of total AWP rental revenue.



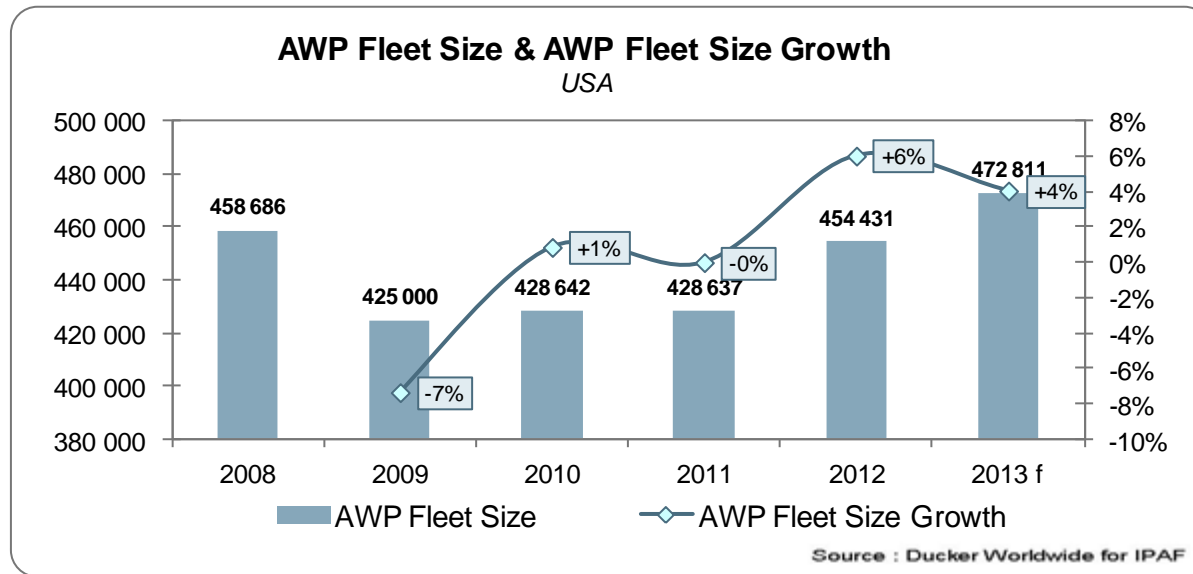
As predicted in 2011, specialists experienced a slightly higher rental revenue growth than generalists in 2012.

- Specialists are typically offering more niche and specialized machines, for which demand has increased.
- Rental revenue growth in the US was driven primarily by fleet expansion. Specialists expanded AWP fleets slightly more than generalists. Both company types improved rates at a similar pace.



Contrary to 2011, rental companies have largely increased their fleet size in 2012 and plan on investing in 2013 again.

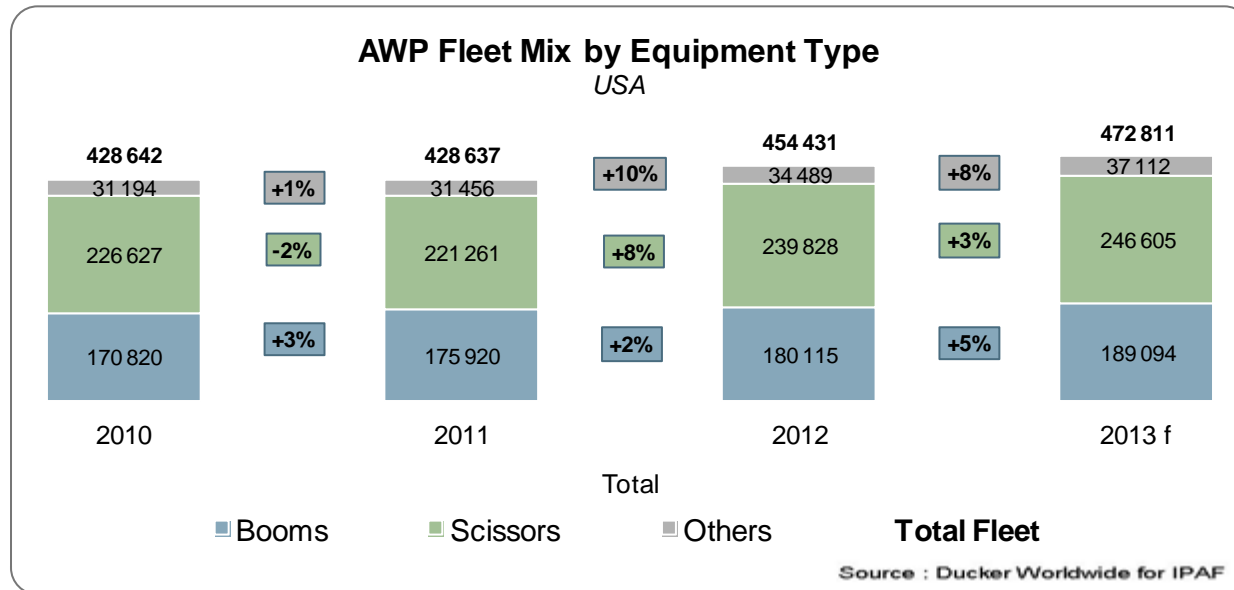
- ❑ The 2012 overall fleet size is almost equal to the level it was before the recession. In 2013, this total fleet size will exceed the 2008 level.
- ❑ Not only did rental companies invest in replacing ageing fleet, but they also increased the overall size of their fleet. There was high interest in specialist equipment: higher booms and also small size scissors, which are being used in both construction and maintenance works.



End of the year data

Fleet size increased by 6% in 2012, primarily driven by purchases of scissors and other equipment such as personal lifts and vehicle-mounted booms.

- AWP prices have risen and most of the investment in increasing fleet size was in low cost and specialist equipment.
- Increased investment in all types of aerials are expected in 2013.

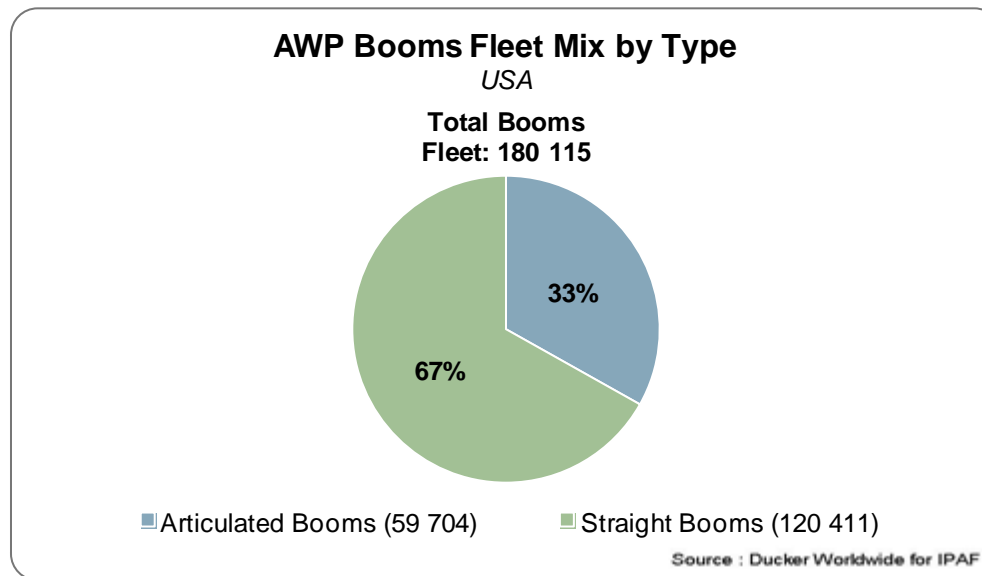


+X% % unit growth, e.g. Booms fleet increased by 2% from 2011 to 2012

Other includes vertical lifts, vertical masts, vehicle-mounted booms.

Straight booms represent more than 65% of the total boom fleet.

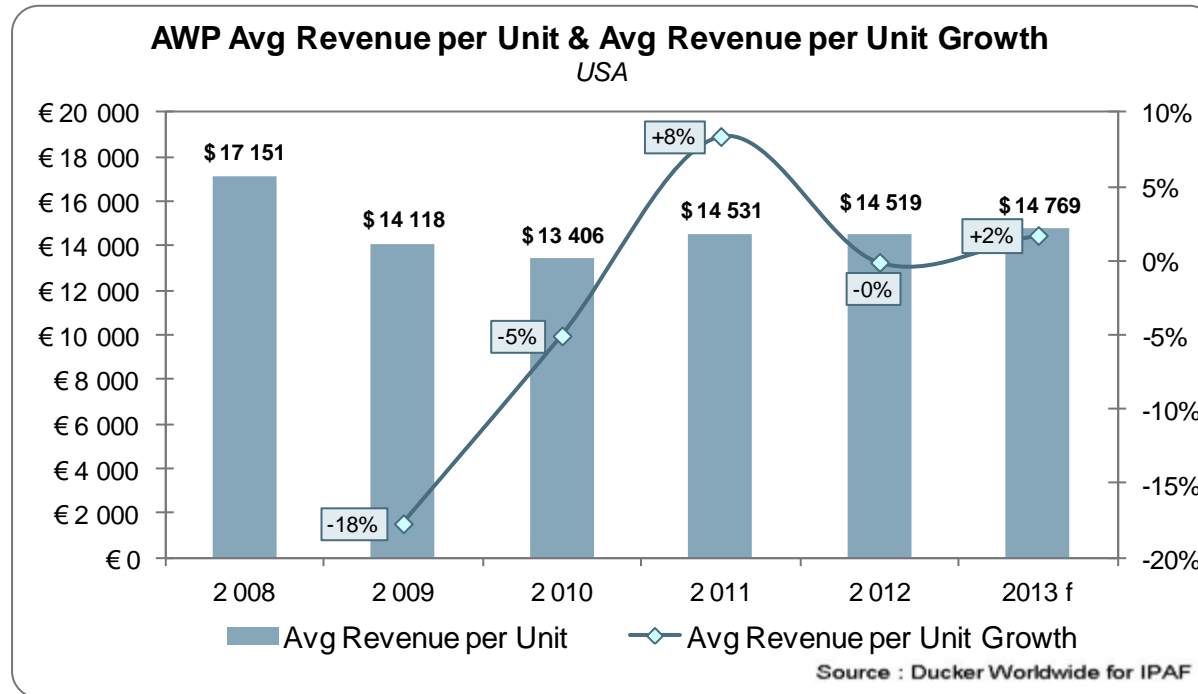
- Straight booms dominate the market, but articulated booms have gained popularity due to their versatility.



End of the year data

The average revenue per unit remained stable compared to 2011 as fleet size grew, but utilisation rates decreased. Increased rental rates did not fully compensate for the decrease in utilisation.

- A slight growth in average revenue per unit is expected in 2013 as the increase in rental rates will continue at the same pace as in 2012. Fleet expansion will slow.



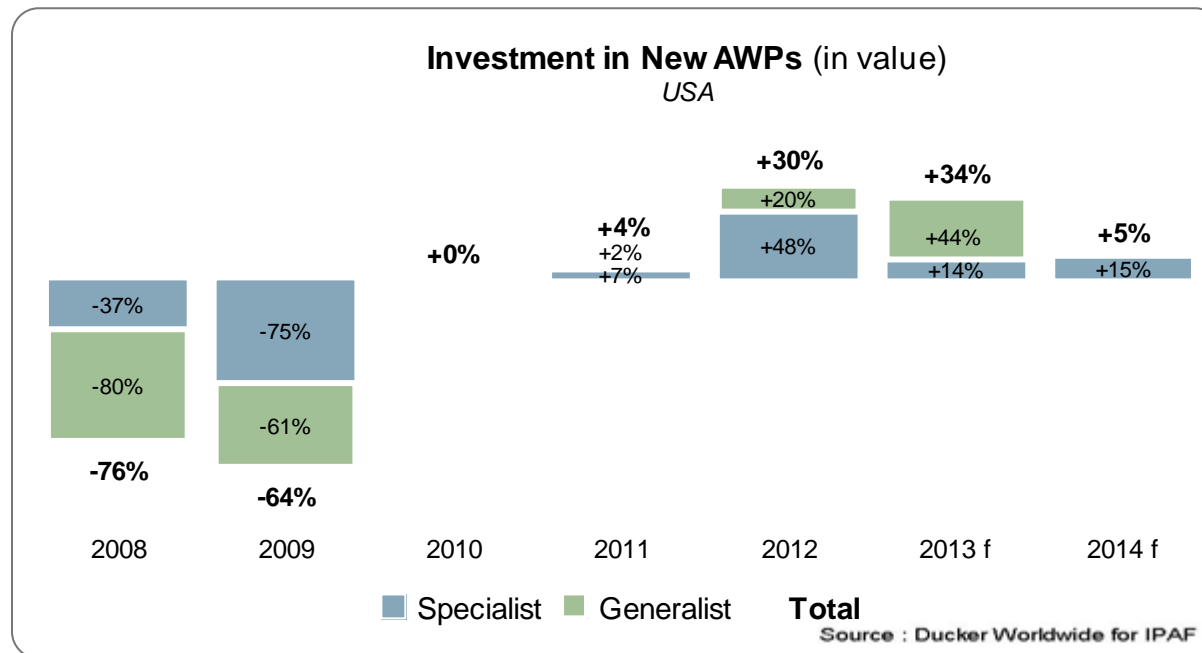


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INVESTMENT 2008-2014

For the first year since the recession, rental companies invested significantly in new equipment in 2012.

- Investment by specialists grew faster than generalists. As they are more dependent on AWP revenue, specialist rental companies de-fleeted rapidly during the recession. As the market rebounded in 2012, specialists were forced to quickly invest in new equipment.
- Investment by generalists will pick up in 2013.

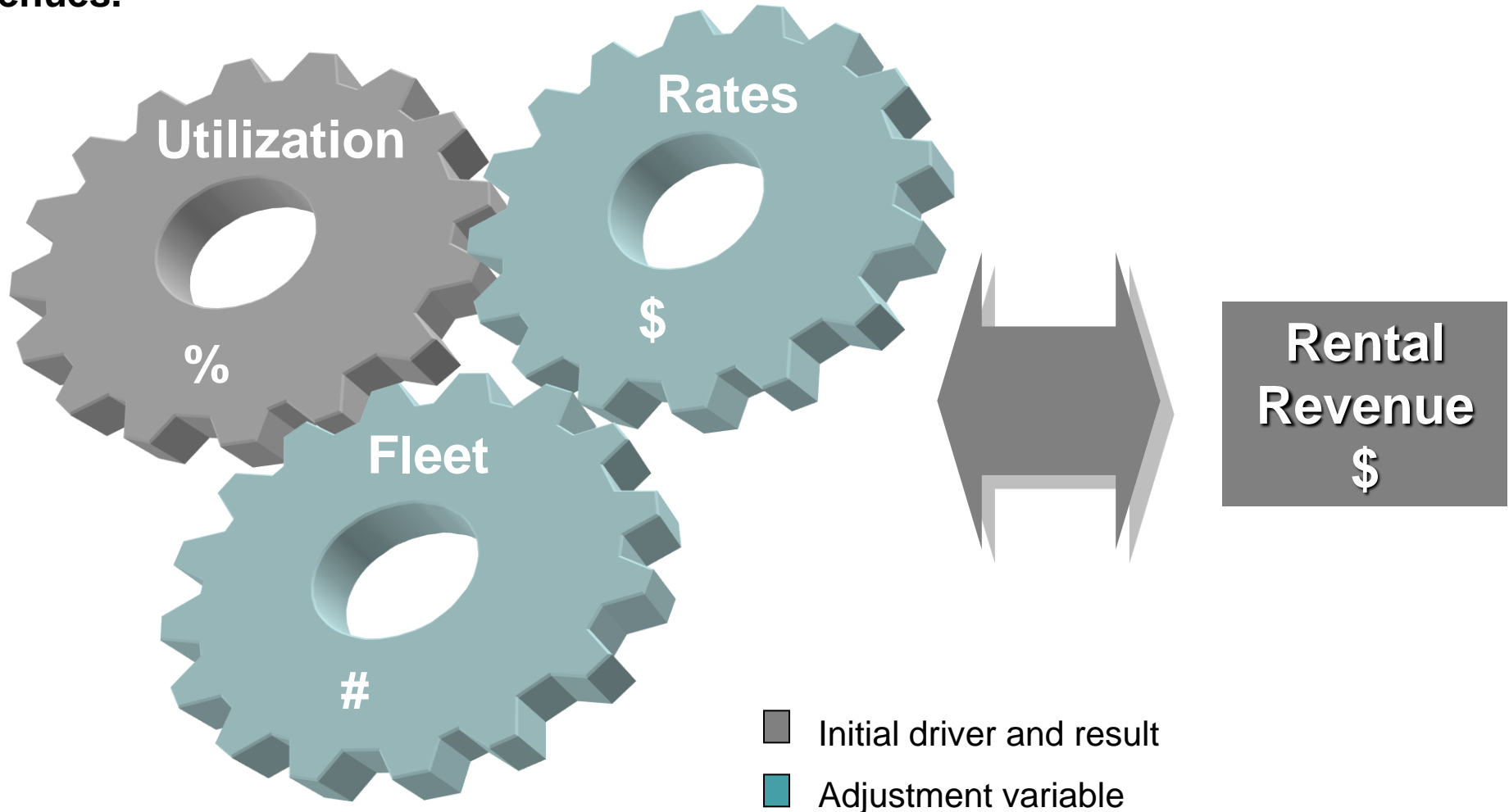




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OPERATIONAL ASPECTS 2009-2013

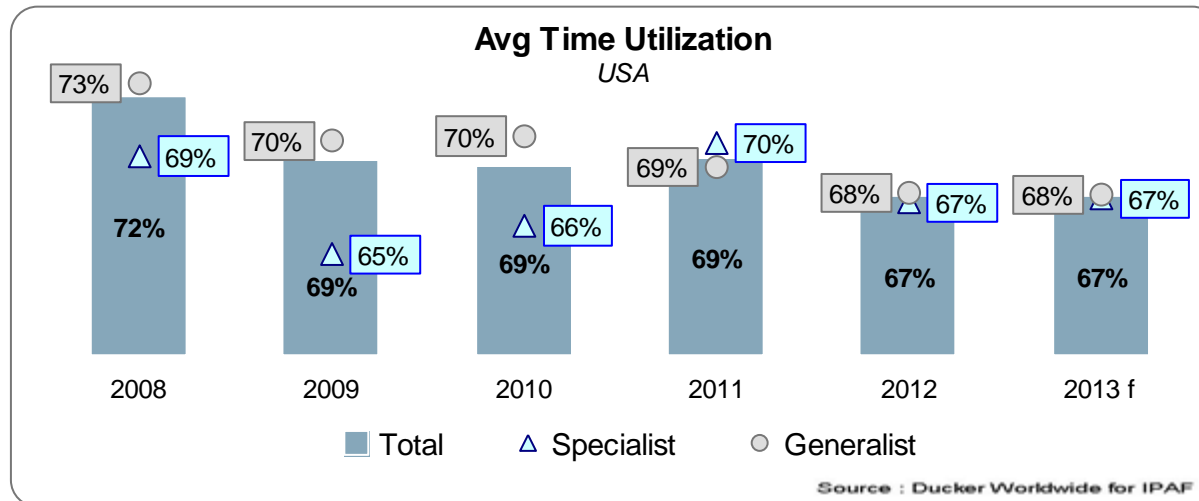
Rental revenues are the result of three main factors, namely equipment time utilization rate, rental rates and fleet size/mix. Rental rates and fleet build-up are the two elements that rental companies can choose to vary in order to influence utilization and thereby, revenues.



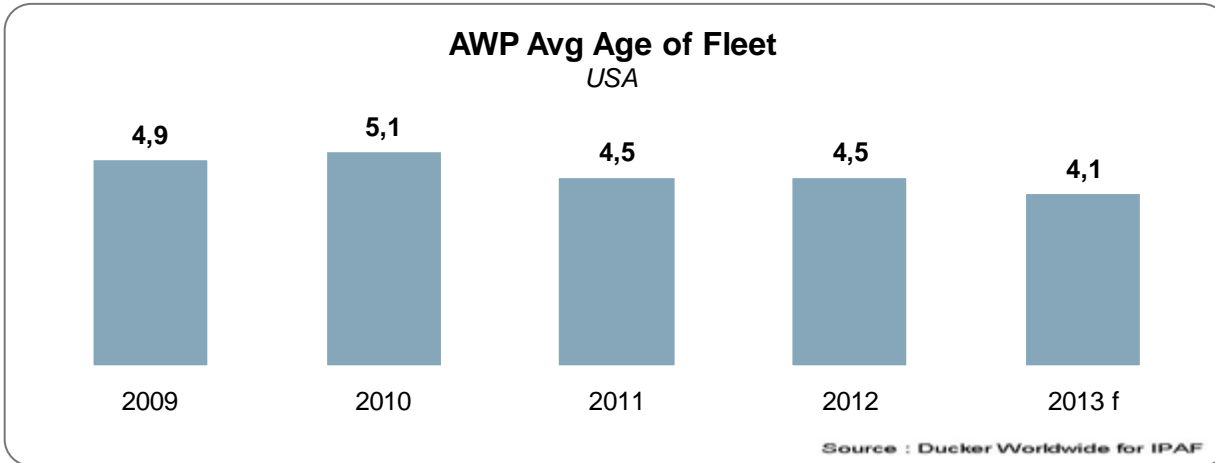
- Initial driver and result
- Adjustment variable

Time utilization rates for specialists and generalists decreased in 2012. This was a result of rental companies focusing on rental rate improvement and fleet expansion.

- Rental companies expect to maintain a similar strategy in 2013, though being more cautious with fleet expansion, as they anticipate limited construction market growth this year.

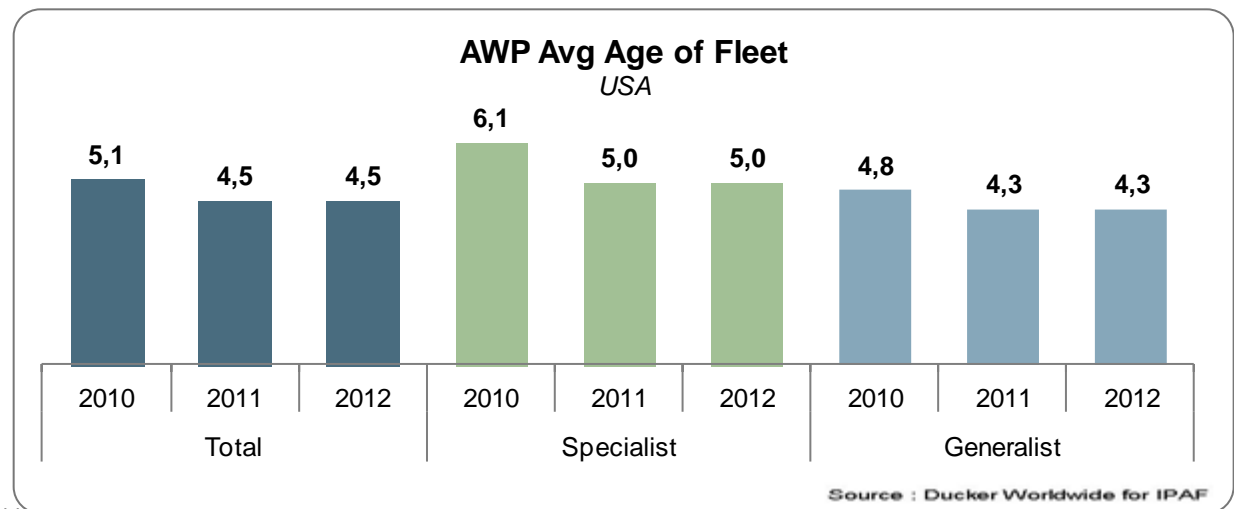


Average fleet age remained stable in 2012 at four years and six months.



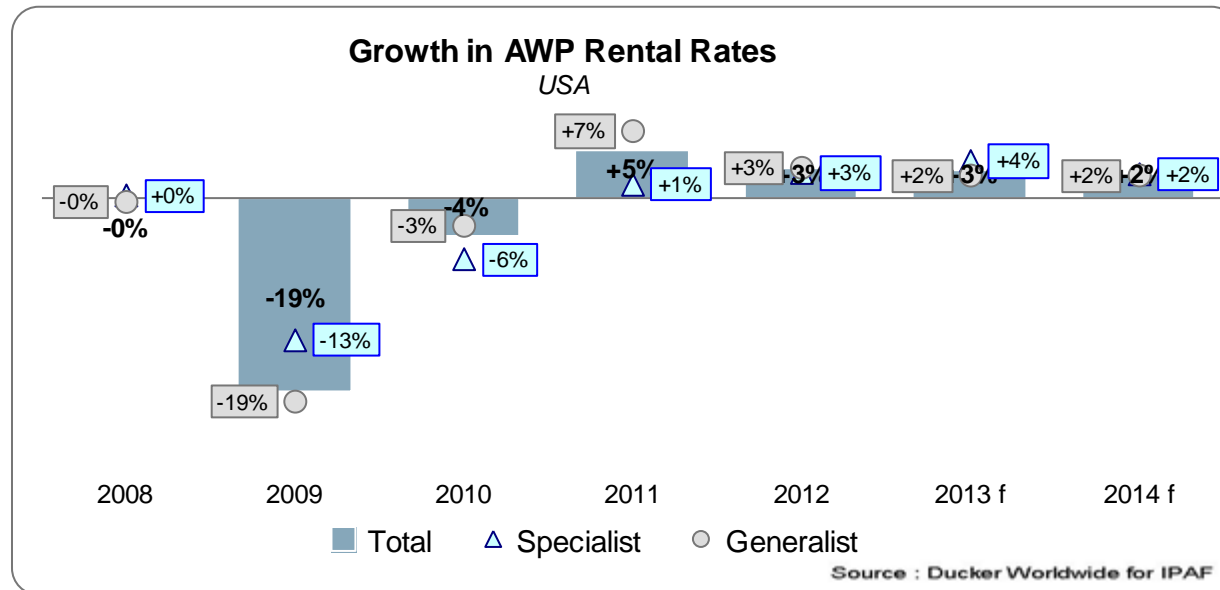
4,5 = 4 years and 5 months

- While rental companies expanded fleets (which would reduce fleet age), they are also making strong efforts to rationalise equipment maintenance and keep equipment longer by developing preventive maintenance, improving maintenance regimes, etc.



In line with the trend initiated in 2011, rental companies plan to keep raising their rental rates though at a less rapid pace.

- ❑ Rental companies chose to increase rental rates at the expense of utilisation. This strategy should continue in 2013.
- ❑ Forecasts show that the growth in rental rates planned for 2013 and 2014 will not yet bring rates back to pre-recession levels.





IPAF Powered Access Rental Market Report – USA

A PERSPECTIVE FROM THE EDITOR OF *INTERNATIONAL RENTAL NEWS*

The key event of the past two years was United Rentals' acquisition of RSC Equipment Rental at the start of 2012 – the biggest rental merger of all time. The deal reinforces United's status as the world's largest rental company and the largest owner of aerial platforms – its access fleet numbers more than 100,000 units.

That merger seems to point towards an ever more consolidated rental sector, but it is worth remembering that even now, with combined revenues of around US\$5 billion, United will still only have an estimated 12% share of the market.

The United-RSC deal was not the only major event in the access sector. Ahern Rentals, the Las Vegas-based rental independent and one of the largest aerial platform companies in the US, entered Chapter 11 bankruptcy protection in late 2011, facing debts of around US\$600 million.

Since then, Ahern's business has steadily recovered and at the time of writing it is still hoping that its restructuring plan will be accepted by creditors at a vote in May 2013. An alternative plan, proposed by a consortium of debt holders, will also be voted on, and if accepted, could potentially see big changes at the company.

Another major independent, Sunstate Equipment, founded by Mike Watts, has recently been majority acquired by Japanese company Sumitomo, which owns a number of equipment dealerships around the world as well as a rental business in Canada. Sumitomo has plans to grow Sunstate into one of North America's top five rental companies, an ambition that will see it invest in aeriels, along with other equipment.

The M&A environment is generally active, with Hertz Equipment Rental Co (HERC) and Sunbelt Rentals also making acquisitions over the past 15 months. Volvo Rents, the rental business owned by Volvo, is also engaged in a rapid roll-up, acquiring many small and medium sized rental companies, including aerial platform specialist Midwest Aerials & Equipment, based in St Louis.

In the utility lift sector, meanwhile, the same process is underway, with NESCO – the largest utility lift rental company in the US – acquiring utility fleets from Penske and UERC (Utility Equipment Rental Corp).

This consolidating trend coincides with major investment in fleets by the biggest rental companies, with access forming a significant portion of these expenditures. Much of this spending has been on replacing ageing fleets, although there is now the real prospect of growth investment as well.

The coming year or two brings the prospect of further M&A activity and growth in the aerial fleet, with the general equipment rental market forecast to grow at three or four times the rate of GDP growth, according to the American Rental Association.

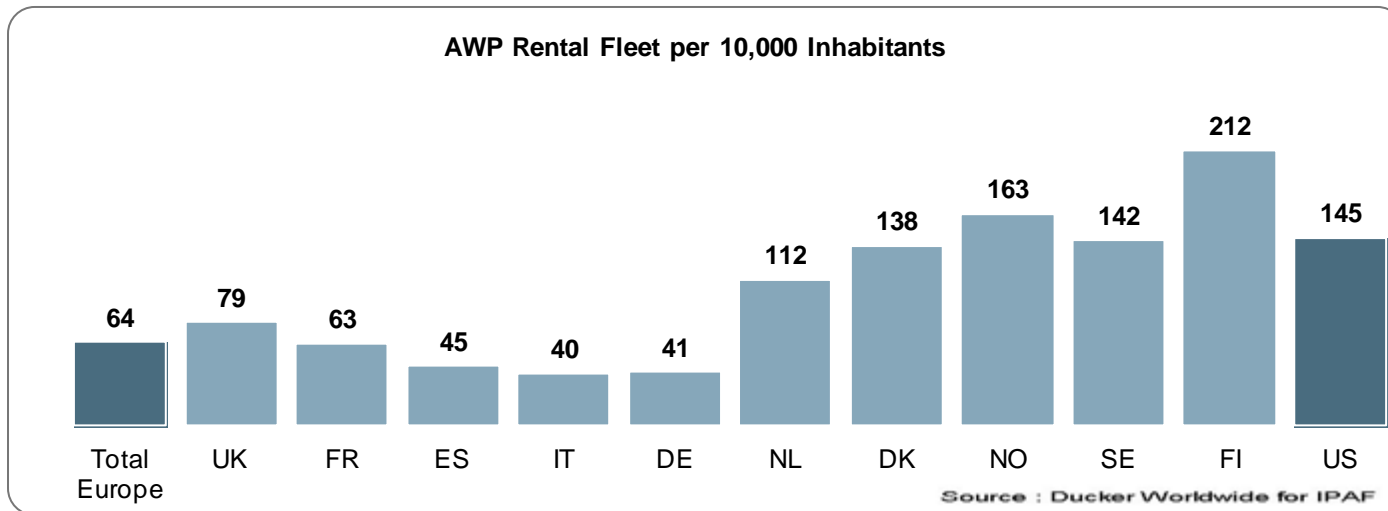
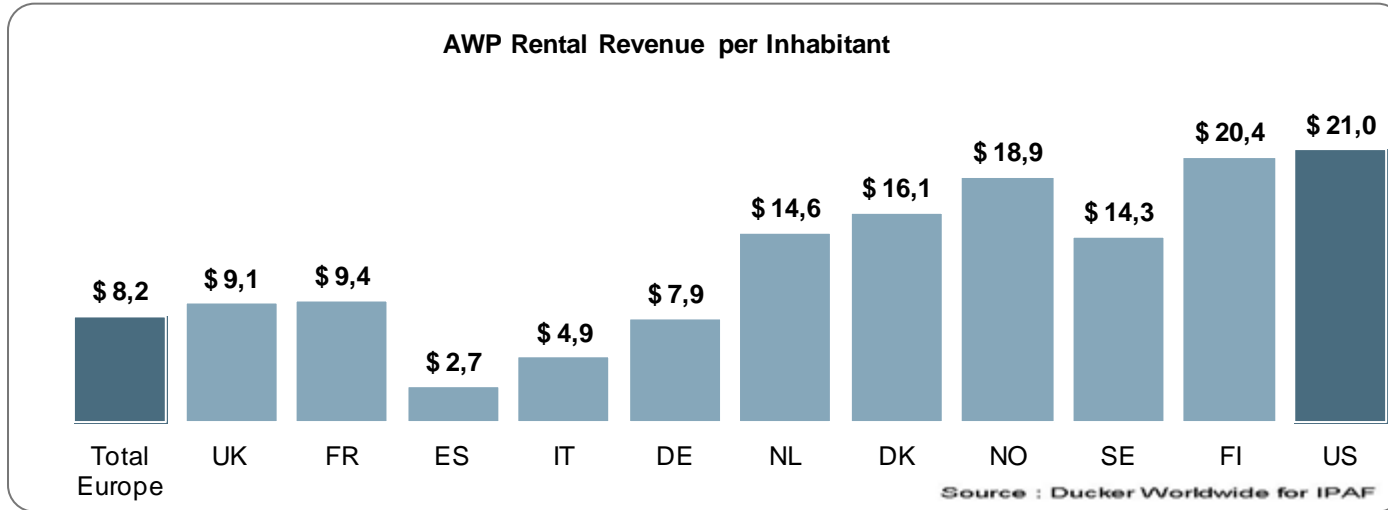


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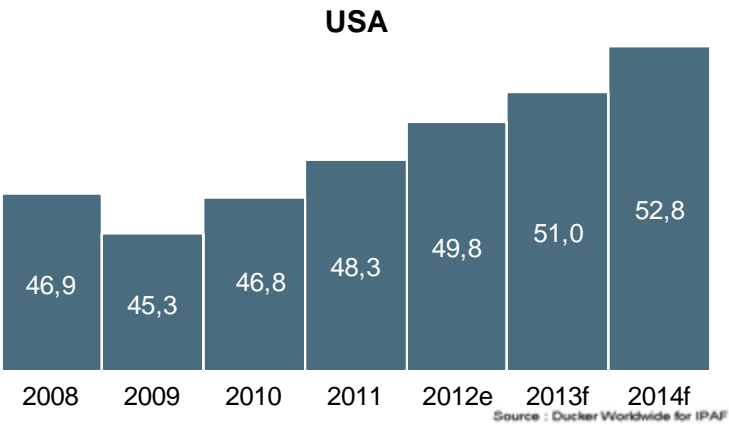
MARKET TRENDS AND DRIVERS

Country Population Penetration – AWP rental revenue per inhabitant

Exchange rate:
€1= \$1.285



GDP per capita

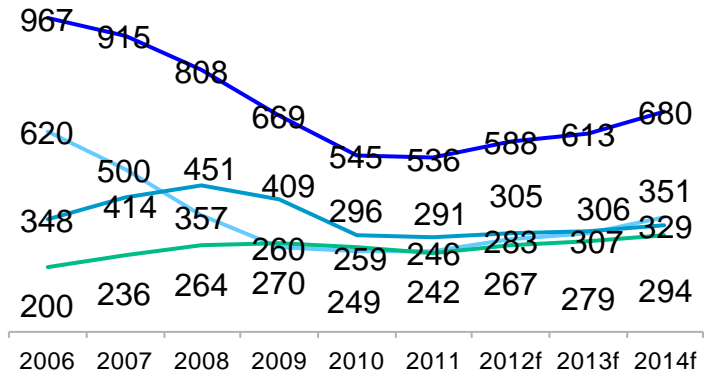


Thousand US dollars at 2012 prices. Source: International Monetary Fund, World Economic Outlook Database, October 2012



All the construction sectors are expected to improve in the coming years. However forecasts show a slower market growth in 2013 compared to 2012 and 2014.

USA - Construction Data

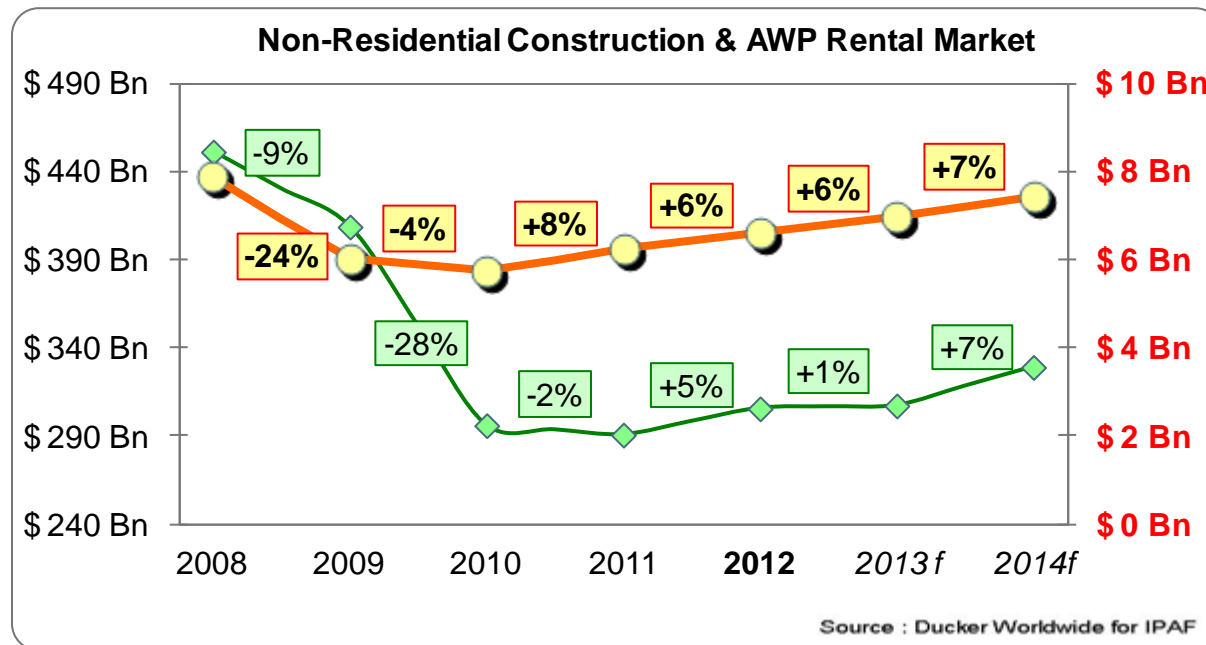


Source : Ducker Worldwide for IPAF

Billion US dollars. Source: US census bureau and Ducker Worldwide estimates

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

After resisting recession thanks to non-construction applications, the AWP market is now increasing as a result of both positive outlook in all business segments and the accelerated shift to AWP rental instead of purchase.



◆ Non-Residential Construction ● AWP Rental Market

Source: Bureau of Economic Analysis, CBO's and US Census Bureau

In a market where equipment cost is expected to increase strongly, rental penetration should continue to increase at a rapid pace in the next few years.

Cost of equipment

- Machine cost increased strongly in the past year and is expected to rise due to Tier 4 regulations.
 - Some engines are expected to double in price.

Shift towards rental model

- Trend started due to recession should continue:
 - Increasing cost of equipment.
 - Limited investment capabilities during and since recession.
 - Higher flexibility with rental.
 - No maintenance, transportation, storage costs.

Fleet management

- Replacing under-performing machines with higher profitable equipment.
- Optimise fleet maintenance: improve maintenance regimes, develop preventive maintenance in order to extend age of fleet.

Fleet diversification

- Smaller/narrower machines (trend coming from Europe).
- Very large booms/scissors.
- Niche machines i.e. atrium lifts, spider lifts, etc.



IPAF Powered Access Rental Market Report – USA

BRAZILIAN AWP MARKET

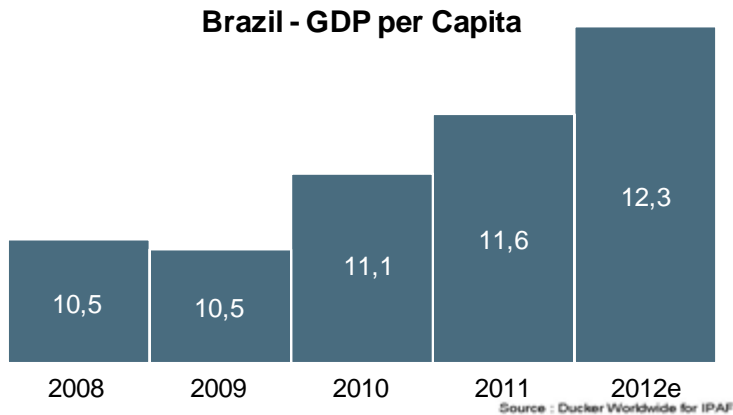
The Brazilian AWP market keeps growing at a fast pace - 1/2

- ❑ The AWP fleet size was estimated between 19,000 and 19,500 units at the end of 2012, representing approximately a 30% growth compared to 2011 – a slightly lower growth than expected at the end of 2011.
- ❑ Players expect that the market will continue to grow strongly with an average of 20 to 25% annual increase in the next four years.
 - The Brazilian AWP fleet is forecast to number more than 29,000 units at the end of 2014.
- ❑ The market has seen the emergence of a number of small to mid-sized rental companies growing fast, as well as scaffolding companies currently diversifying their activity.
- ❑ The implementation of the norm NR 35 (April 2013) allows for optimistic forecasts regarding AWP rental as it highlights the government's support for AWP usage instead of scaffolding or ladders.
 - Some rental companies have subsequently developed operator training over the last year so that companies renting AWP equipment comply with the new norm.

The Brazilian AWP market keeps growing at a fast pace - 2/2

- ❑ The Football World Cup (2014) and the Olympic Games (2016) add some large construction projects to an already dynamic housing and infrastructure construction market.
- ❑ Scissors are less expensive and typically represent an easy initial investment for new rental companies; booms are currently very popular and increasingly substitute for scaffolds in construction work.
 - Small company fleets are typically made up of 60% scissors and 40% booms.
 - Larger players reported to have more booms than scissors.
- ❑ The most common type of rental contract is for one month and the rental rate is around 6-7% of the total value of the machines.
- ❑ The market relies on imports from North America mostly, and from Europe. No local manufacturer is reported to produce AWP's in substantial quantities.

GDP per inhabitant and construction data.



Thousand US dollars at 2012 prices. Source:
OECD, estimates from CIA Factbook

- ❑ In 2011, construction increased by 4.8% and is estimated to move to 5.5% in 2012.
- ❑ A total of \$809.4B is expected to be invested in infrastructure between 2012 and 2020.
- ❑ Construction represents 16.4% of Brazil's gross domestic product (GDP).
- ❑ The 2014 soccer World Cup requires a total of \$10B of investments and Rio de Janeiro alone is expected to receive about \$14.4B of investments in infrastructure improvements before the 2014 Olympic Games.

This concludes our report. Thank you.

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