

Buy EUR 250.00 Price EUR 179.50 Upside 39.3 %	Value Indicators: EUR DCF: 250.41	Share data: Bloomberg: PAL GR Reuters: PALG.DE ISIN: DE000A12UPJ7	Description: Pantaflix is a media company with the focus on streaming business and film production
	Market Snapshot: EUR m Market cap: 228.1 No. of shares (m): 1.3 EV: 226.4 Freefloat MC: 91.2 Ø Trad. Vol. (30d): 488.55 th	Shareholders: Freefloat 40.0 % BlackMars Capital GmbH 60.0 % Allianz 6.9 % FPM AG 4.0 %	Risk Profile (WRe): 2017e Beta: 1.6 Price / Book: 11.7 x Equity Ratio: 49 %

Providing specialty film to an international audience; Initiation with Buy

We initiate coverage of **Pantaflix** with a **Buy rating** and a **price target of EUR 250**, implying more than 30% upside to current share price levels. Pantaflix, a German media and technology company which is aiming to become the world's largest film library, launched its Video-on-Demand (VoD) platform in 2017. Rather than targeting the mainstream market, Pantaflix targets an audience of expatriates, or people of any nationality living outside their country of origin who wish to watch films from their home countries. Pantaflix thus offers a wide range of local content for an international audience. Films, which normally only reach a domestic audience, are thus also made available to an international niche of film enthusiasts. Moreover, a current deal with Disney makes the platform more attractive for a broad audience and increases the probability of success of the streaming business.

The second business segment is film production, where the company is a successful player with numerous German box-office hits. The involvement of one of Germany's leading actors Matthias Schweighöfer as a shareholder and participant in the film productions strengthens the company's prestige within the sector and is instrumental to box-office success in Germany.

Further growth should mainly stem from streaming but, to a certain extent, from content production too:

- While the international mass market streaming business is already dominated by heavyweight players, the **addressable niche of Pantaflix is so far unoccupied**.
- We expect **rising demand for VoD services** with the structural shift in consumption towards digital media and the increasing global broadband penetration rate.
- Pantaflix's main **target group, people of all nationalities living outside their countries of origin, is expected to continue to grow** at stable rates, in step with ongoing globalisation.

We see the content production business as a stable foundation for the rollout of the streaming platform as it contributes important contacts to relevant players in the industry and a stable result with an EBIT margin of 10-14%. With the successful rollout of the streaming platform, we expect the company's EBIT margin to reach 35.2% by 2024. As the VoD business gathers pace, EBIT margins of >60% should be achievable in this segment in a steady state scenario.

The valuation is subject to some uncertainties but looks attractive, even though future expectations are to some extent already priced in. The global rollout of the streaming platform is responsible for current losses but we expect the company to turn profitable by 2018. Our base case DCF model derives a fair value of EUR 250 per share. We initiate coverage with a Buy rating and a PT of EUR 250.

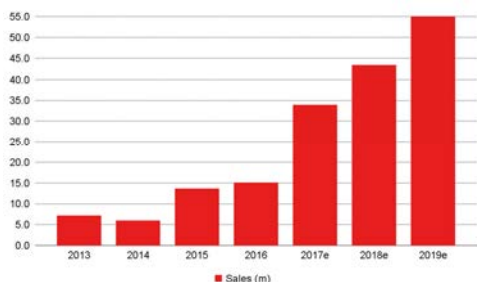


Rel. Performance vs Scale All	
1 month:	-0.6 %
6 months:	17.1 %
Year to date:	-4.3 %
Trailing 12 months:	n/a

Company events:
25.07.18 AGM

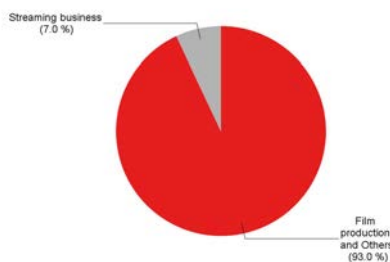
FY End: 31.12. in EUR m	CAGR (16-19e)	2013	2014	2015	2016	2017e	2018e	2019e
Sales	53.9 %	7.2	6.0	13.7	15.1	33.9	43.4	55.1
Change Sales yoy		n.a.	-16.6 %	127.7 %	10.4 %	124.8 %	27.8 %	26.9 %
Gross profit margin		21.4 %	-16.0 %	32.5 %	78.8 %	85.4 %	88.4 %	90.0 %
EBITDA	56.1 %	3.1	-0.3	8.8	9.1	21.8	26.8	34.7
Margin		42.7 %	-5.5 %	64.4 %	60.4 %	64.1 %	61.7 %	63.0 %
EBIT	-	2.9	-0.3	-0.6	-1.8	-1.0	0.7	4.7
Margin		40.7 %	-5.8 %	-4.3 %	-11.7 %	-3.0 %	1.6 %	8.6 %
Net income	-	2.8	-0.4	-0.4	-1.7	-0.9	0.9	4.4
EPS	-	2.76	-0.39	-0.39	-1.54	-0.72	0.70	3.48
EPS adj.	-	2.76	-0.39	-0.39	-1.54	-0.72	0.70	3.48
DPS	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dividend Yield		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCFPS		2.91	-8.83	0.27	-5.30	-2.36	-3.27	-1.06
FCF / Market cap		n.a.	n.a.	0.7 %	-10.3 %	-1.3 %	-1.8 %	-0.6 %
EV / Sales		n.a.	n.a.	2.9 x	4.0 x	6.5 x	5.2 x	4.1 x
EV / EBITDA		n.a.	n.a.	4.4 x	6.6 x	10.2 x	8.5 x	6.6 x
EV / EBIT		n.a.	n.a.	n.a.	n.a.	n.a.	326.7 x	48.3 x
P / E		n.a.	n.a.	n.a.	n.a.	n.a.	256.4 x	51.6 x
P / E adj.		n.a.	n.a.	n.a.	n.a.	n.a.	256.4 x	51.6 x
Net Debt		0.0	4.6	-1.8	3.9	-5.8	-1.7	-0.3
ROCE (NOPAT)		n.a.	n.a.	n.a.	n.a.	n.a.	4.3 %	19.5 %
Guidance:	Sharp rise in sales and significant increase in income							

Sales development in EUR m



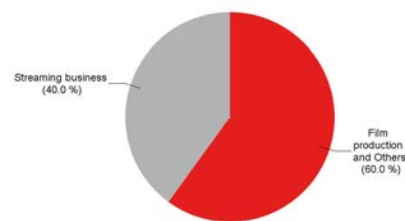
Source: Warburg Research

Sales by segments 2017e; in %



Source: Warburg Research

Sales by segments 2025e; in %



Source: Warburg Research

Company Background

- The transaction based Video-on-Demand platform Pantaflix and the production studio Pantaleon form the core business of the company. Synergies are realised in the film-based marketing business.
- Pantaflix is regarded as the main driver of future revenues. The platform has a global presence and attracts an international audience by offering six language versions.
- The main target group is people living outside their country of origin and film buffs, who cannot access relevant film content in their country of residence.
- The aim is to create an international film library that provides global access to film content from a wide variety of sources, by creating a database with up to 1m films.
- Pantaleon produces German box-office hits, with the prestigious involvement of popular actor Matthias Schweighöfer, and establishes contacts to rights holders and producers for Pantaflix.

Competitive Quality

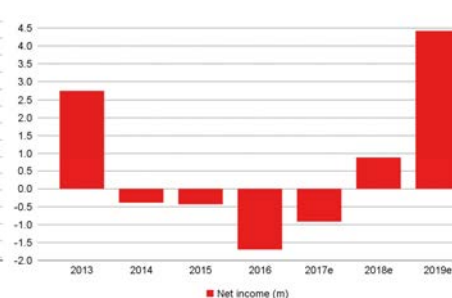
- Strong network of industry contacts based on a successful film production track-record and many years of experience in the sector.
- Transaction Video-on-Demand (T-VoD) platform offers producers a unique platform to distribute and monetise content on a global scale.
- Structure and target group of the streaming platform provide for cost advantages along the value chain, especially in the fields of content sourcing and marketing.

EBIT development in EUR m



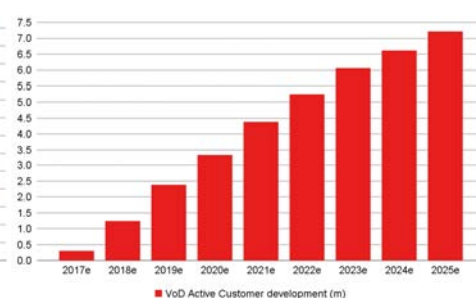
Source: Warburg Research

Net Income development in m



Source: Warburg Research

VoD active customer development in m



Source: Warburg Research

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Summary of Investment Case

Investment triggers

- Structurally growing VoD market environment offers the opportunity for dynamic growth for the Pantaflix streaming platform, i.e. a sales CAGR of 62.0% until FY 2025, with high double-digit margin potential, i.e. above 60%, long-term
- Steadily developing content production business, i.e. sales CAGR of 8% until FY 2025, constitutes a solid revenue pillar that delivers a stable EBIT margin of ~12%
- Strong EPS growth expected, with breakeven to be reached by FY 2018
- Deals with major studio (currently Disney) increase the probability of success of the streaming business

Valuation

- Our DCF-based PT points to EUR 250
- Scenario analysis provides additional cases for the development of the VoD business

Growth

- Rising global demand for video-on-demand services
- Change in consumer behaviour (from linear TV to digital media) to boost streaming business models
- The target consumer group, people of all nationalities living outside their countries of origin, is expected to grow further
- Disney Deal opens access to a much broader target group
- Growth in the content production segment driven by a strong film pipeline for the coming years

Competitive quality

- Strong contacts network and business relationships along the value chain
- Market knowledge and track record in content production business
- Appealing business model for content owners, who earn around 75% of each transaction
- No significant costs for content
- Competitive advantage in terms of marketing costs as mass marketing is not needed to reach the target groups
- Flexibility of platform design

Warburg versus consensus

- Our top-line estimates are broadly in line with consensus for FY 2017/18/19
- On EBITDA and EBIT level, we are slightly below consensus for the same time period as we forecast breakeven will occur at a later stage in the VoD streaming platform business

Company Overview

Company Overview			
Segments	Video-on-demand	Film Production	Others
Brands			 
Business model	Video-on-demand platform that provides worldwide access also to local film productions.	In-house and co-productions of theatrical feature films	Music label, branded entertainment, brand integration
Target groups	People of all nationalities living outside their countries of origin and film enthusiasts	Broad audience for commercial films	Distributors, broadcaster, advertising companies
Revenue 2016 (EUR m)		16.3	
EBIT 2016 (EUR m)		-1.8	
EBIT margin		-11.04%	
Competitors			
Partners and cooperations			

Source: Warburg Research

Competitive Quality

- Broad network and thorough knowledge of the industry
- Appealing transaction video on demand (T-VOD) business model for third-party content producers
- Streaming business model offers certain cost advantages at various stages of the value chain

Strong contact network in the sector

Strong contact network and business relationships along the value chain

Pantaflix benefits from its strong network to various players in the film industry value chain and business cooperation in adjacent fields. This strength could turn out to be a key competitive advantage especially when it comes to sourcing new content or distributing the Pantaflix platform. The following examples illustrate this advantage:

- In the music segment, Pantasounds GmbH, the company bundles all activities related to the music industry. In the area of movie soundtracks, Pantaflix has entered an exclusive label distribution agreement with Universal Music. In our view, this relationship could be extended to fields of film content in future, which would give Pantaflix further access to high quality content.
- In the content production segment, Pantaflix in cooperation with Warner Bros. was contractually mandated by Amazon to produce the suspense series “You are wanted” and its sequel exclusively for the VoD platform Amazon Video. The mandate was an important milestone for Pantaflix for two reasons: 1) a large contract was gained for the content production business and 2) synergies are generated between the content production and VoD segment. The mandate represents a gateway to potential follow-up business with the global tech giant. For instance, Amazon has added the Pantaflix app to its consumer entertainment product Amazon Fire TV.

The following table illustrates selected corporate relationships of Pantaflix for potential follow-up business on the sourcing and distribution side.

Overview of selected and potential corporate relationships of Pantaflix



Source: Warburg Research

Promising access to Chinese content and distributors

In May 2017, Pantaflix entered a joint venture in the area of video on demand (VoD) with the Chinese Seven Stars Media Group which is owned by Bruno Wu, a Chinese media mogul. The JV plans to connect the Pantaflix platform to the network of Seven Stars Media which includes companies such as the New York-based Wecast Network and Hong-Kong-based Redrock Capital Limited. Based on the JV, a new entity was founded in which Bruno Wu with his legal entities as well as Pantaflix hold 50%.

From a content perspective, the JV is extremely beneficial for Pantaflix as it should add more than 100k films to the VoD platform and offer Chinese nationals living abroad (China has a global diaspora of about 40m) exclusive access to a broad assortment of domestic content.

The JV should also give Pantaflix access to more distribution channels as its innovative VoD technology is to be combined with Bruno Wu's content and market access to retail customers and B2B clients in the US and China. In the field of B2B, for instance, Bruno Wu has an existing cooperation agreement with the Chinese rail industry to which VoD solutions are planned to be offered.

The strong business relationship with the Chinese media industry is further underlined by a recent deal in the content production segment. Pantaflix sold the Asian rights to its upcoming blockbuster movie "Hot Dog" to the Chinese rights distributor S&C Pictures, which is quite remarkable as European content is only rarely sold to the massive Chinese market.

Market knowledge and track record in content production

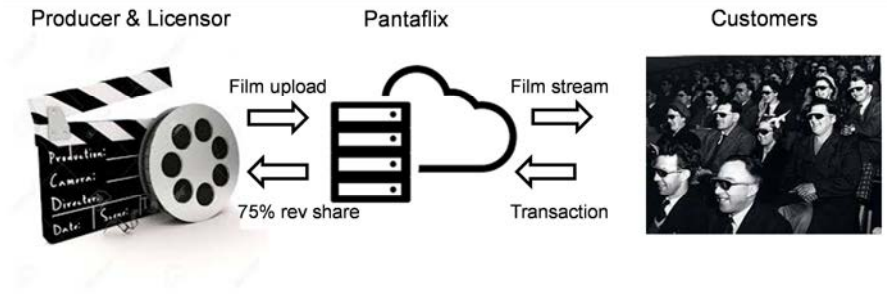
The management and anchor shareholders of Pantaflix have a high level of industry expertise and many years of experience in content production and the film industry in general. Dan Maag had already produced numerous cinema films before becoming CEO of Pantaflix. His business partner Matthias Schweighöfer, an actor and household name in Germany, has acted in more than 30 movies. The Pantaflix Group boasts a successful track record of ten award-winning movies. The latest releases include the first season of "You are Wanted" as well as the movie "Jack The Ripper". The production "Hot Dog" was released in January 2018 and started with great success. Next promising project is "Vielmachglas", which will be released in 2018 as well as "You Are Wanted 2".

We deem the company's influential business relationships within the industry and the strong actor pool as supportive for the successful ramp-up of the platform globally and for the selection of successful scripts in the content production segment.

Appealing for content owners

The VoD business model is appealing for content owners as they earn a greater share of revenue than in conventional film distribution business models. Pantaflix disperses around 75% of generated gross revenues to the content owner, while the conventional business models give the content owner less than 10%. Furthermore, the VoD platform offers content owners an almost effortless way to distribute and monetise their content, as content (even older content) can simply be uploaded to the state of the art B2B platform Panatflix Pro. The upload is free of charge, i.e. no transcoding costs, no sign-up fee, and the content owner is free to choose the price for which viewers can watch the movie.

Business model



Source: Warburg Research

No significant costs for content

As Pantaflix does not produce content specifically designed for the platform nor does it foresee the acquisition of exclusive content rights, content should represent a minor cost factor for the company.

From a content producer perspective, Pantaflix is rather an incremental platform which enables 1) the distribution of specific content on global scale, especially to regions where there were no exclusive distribution deals and 2) the monetisation of film classics or older content, also with global reach. According to the company, Pantaflix is in constant negotiations with a number of international film distributors and producers to add further content to the platform. The strategy is to directly address large licence owners in several countries and convince them to upload their content.

To avoid confusion, the company's origins lie in the content production business. However the content produced is most often exclusively mandated by third-parties rather than produced for the in-house streaming platform. Compared to other video on demand streaming portals, Pantaflix is not dependent on specific content or trends.

Competitive advantage in marketing costs

In the field of marketing, the company focuses solely on performance marketing, which is beneficial in our view for the following reasons: 1) performance marketing is much more cost efficient as service providers are only compensated when a new lead is generated. 2) target audiences, i.e. expatriates, are mainly identified by online key-word marketing techniques, e.g. Google AdWords. We suspect that the search frequency for foreign key words with a link to film-based entertainment is rather limited. While the pricing of Google AdWords is determined by auction, in our view, the rather low frequency of AdWords should have a positive impact on marketing spend especially considering that cost-intensive mass market branding campaigns seem unnecessary.

Besides proactive performance marketing activities, Pantaflix benefits from indirect marketing by film studios promoting their most recent releases and highlight distribution platforms.

Major studios to enhance competition in VoD market

The major film studios have an interest in a more competitive video on demand market, especially the transactional VoD market, which is dominated globally by Amazon Video and iTunes video. As a consequence, the pricing power of streaming services is quite high which results in high profits. The upcoming increase in competition moves a higher share of profits towards the studios/license owners. Therefore, the major studios have an interest in promoting Pantaflix as a potential international player in the transactional VoD field as evidenced by the current Disney deal, which is, according to Pantaflix, merely a door-opener. The company aims to expand the deal to further regions and to attract other major studios to the platform as well.

Flexible platform design

Pantaflix officially launched its VoD streaming platform in FY 2017 after a successful beta phase in FY 2016. The platform, which is available on all internet-enabled electronic devices thanks to a high-performance transcoding technology, was developed by Pantaflix entirely in-house. Thus the company has full control over the technology and the flexibility to adapt the platform to technological innovation, design changes or changing consumer trends.

Analysis of return on capital

- Intangible assets make up a large part of the balance sheet as a result of content production business
- Currently unprofitable as the development of the streaming business is being cross-financed
- ROCE and profitability rates to increase substantially after successful rollout of VOD platform with long-term EBIT margins of more than 40%

Low capital intensity

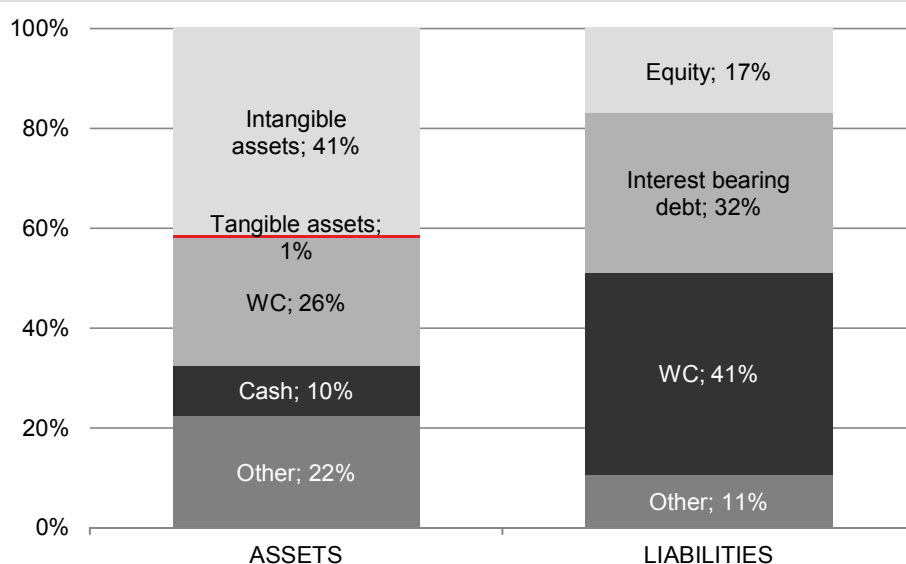
Intangible assets dominate the balance sheet

Both the production and streaming business are based on intangible assets. The production business generates intangible assets in the form of licencing rights on produced content. The company pursues a conservative accounting approach, resulting in high depreciation rates of 90% in the first year of content production. This procedure is based on the high commercialisation of these rights in the time directly after the production has finished. Afterwards, the interest of the audience and therefore the value of these rights typically drop dramatically.

The streaming business is also characterised by intangible assets. While the streaming platform is based on transactional VoD, which has no influence on the balance sheet, the costs of the development of the platform were partially capitalised. Nevertheless, the intangible assets stem mainly from the content production business.

Liabilities are characterised by a large proportion of short-term liabilities. These positions chiefly consist of short-term liabilities to banks and advance payments. While the liabilities to banks are grouped under "interest-bearing debt", advance payments are included in the working capital. As of December 2016, the liabilities to banks totalled EUR 5.8m and are due within one year. Advance payments amounted to EUR 6.5m, of which EUR 2.5m are due within one year and EUR 4m within one to five years.

Balance sheet as of Dec 2016



Source: Warburg Research

Pantaflix rollout still requires high capital expenditure

In recent years, profits made in the content production business were used to finance the development of the Pantaflix platform and its global rollout. As the streaming business is still in the ramp-up phase, we believe that some capex will still be necessary for at least two more years. Our estimates include a total of some EUR 57m for the group within the next two years. Marketing costs will rise significantly in 2018, based on high customer acquisition costs. As these costs are related to new customers, they will level off in accordance with the new customer growth rate, while the benefits of scale that come with a larger customer base will increase from year to year. We expect the streaming to reach break-even point in 2019, resulting in no further regularly high capital expenditures.

Leverage expected to remain low

Pantaflix is equity-financed with no long-term debt on the balance sheet. The short-term liabilities to banks result from the typical structure of the content production business, which includes financially-secure projects that are partly pre-financed by banks.

As the content production business is expected to expand due to larger project volumes, we assume the short-term liabilities to banks will increase moderately. Overall leverage is expected to remain at low levels as the streaming business requires no further debt and as the short-term liabilities for content production are only expected to expand in proportion to the size of the projects, the fundamental financing of this segment is not expected to change.

Negative net working capital is a result of the production business and is further supported by VoD business

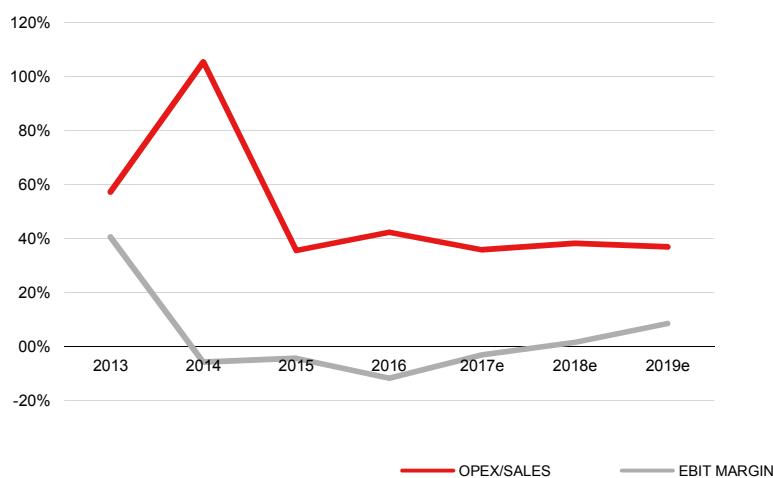
The net working capital of the company turned negative from 2015 on, which is regarded as favourable. This was a result of the value of inventories, which declined when the company decided in 2016 to declare unfinished projects in the production business as advance payments in the intangible assets. We concur with this view as, especially for contractual productions, the financial risk lies with the principal.

The VoD business will eventually contribute to the negativity of the working capital. As the company pays producers and rights owners on a monthly basis but charges customers, depending on the payment method, within days, this practice results in an advance payment situation as such.

EBIT margin to increase substantially with further streaming rollout

The main business in past years was content production with its typically low (high single-digit) EBIT margins. As previous films were successful and sometimes resulted in sequels, we expect a slight increase in negotiating power and therefore increasing EBIT margins. But overall, as film production is a rather low-margin business, we expect margins to level off between 10% and 15%.

Operating margin



Source: Warburg Research

The main driver of high double-digit margins in future is expected to be the VoD business. As Pantaflix operates the platform without investing in film rights or the production of exclusive content, the streaming segment margin should reach 60% or even higher, leading to significantly higher margins for the group as the platform is rolled out globally and as revenues from the platform increase.

ROCE development is currently of little significance

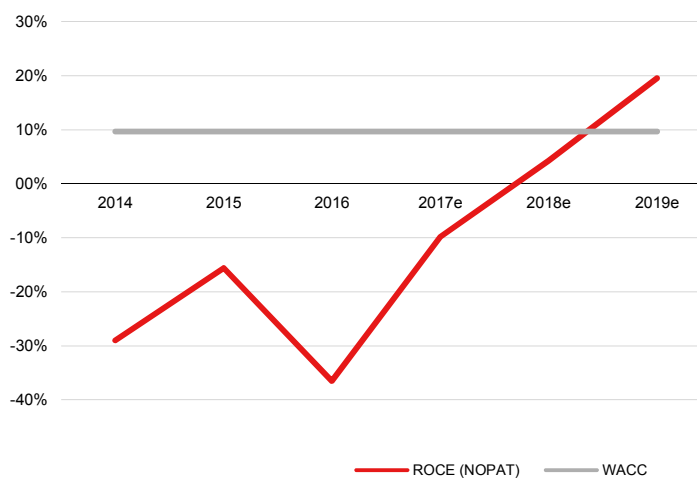
Average capital employed is increasing steadily, driven by capital changes (especially increases in 2017) and changing levels of financial debt (depending on the short-term debt of production projects).

ROCE calculations

	2014	2015	2016	2017e	2018e	2019e
Average Capital Employed	1.9	3.4	5.0	10.4	16.3	21.7
<i>thereof</i>						
Equity	-0.9	4.8	3.1	19.6	20.5	24.9
Net Financial Debt	4.6	-1.8	3.9	-5.8	-1.7	-0.3
EBIT	-0.3	-0.6	-1.8	-1.0	0.7	4.7
<i>EBIT Margin</i>	<i>-5.8%</i>	<i>-4.3%</i>	<i>-11.7%</i>	<i>-3.0%</i>	<i>1.6%</i>	<i>8.6%</i>
Tax rate	-58%	11%	-3%	0%	0%	10%
NOPAT	-0.5	-0.5	-1.8	-1.0	0.7	4.2
ROCE (NOPAT)	-29.0%	-15.6%	-36.5%	-9.8%	4.3%	19.5%
WACC	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%

Source: Warburg Research

As the company is 1) still expanding and 2) undergoing structural change from a film production company to a streaming company, the significance of the ROCE is very limited. Past years were characterised by large investments in the VoD platform Pantaflix. Against this backdrop, the only ROCE positive year was 2013, including solely the content production business.

Sustainability of returns

Source: Warburg Research

From 2017 onwards, we expect cross-financing of the streaming business to decline, which will lift the ROCE to higher levels. We expect ROCE to sustainably surpass our assumed WACC from 2018 onwards, depending mainly on the rollout and success of the streaming platform.

Growth / Financials

- Rising global demand for video-on-demand services
- Change in audience consumer behaviour boosts streaming business models
- Further growth expected in international migration
- Disney deal as door opener to content and user additions

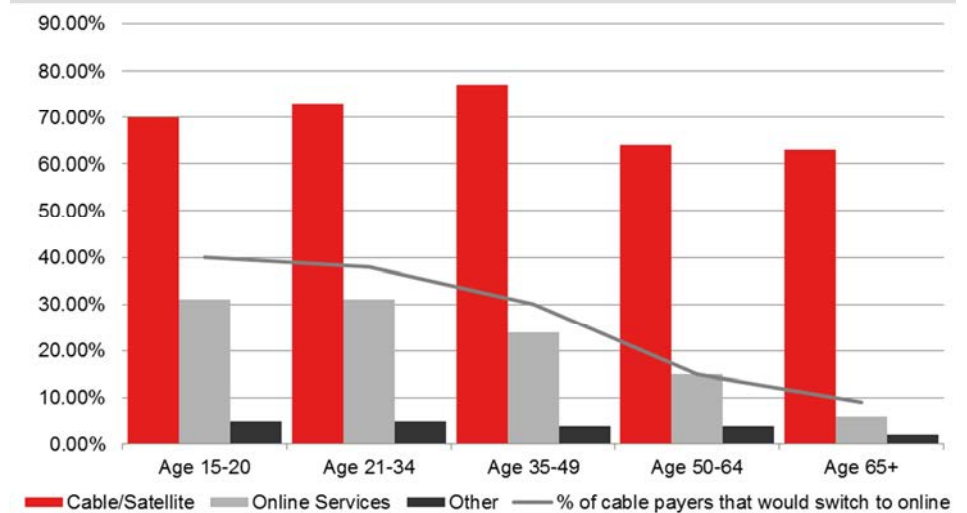
Changing film consumption trends

The potential of the streaming business is the key driver of the share price. However, as the platform lacks a track record and the visibility of KPIs is low, we take a top-down approach, looking first at the structural market situation before examining the implications for the company.

Structural change in film consumption

Since the first service was launched in 1990, streaming has become an important method of media consumption as an attractive alternative to, and even replacement for, traditional linear television broadcasting. While the first streaming services concentrated on music streaming on the fringes of the rapidly emerging world wide web, today media consumption via the streaming of video and audio material is a multi-billion dollar business. The acceptance and use of streaming services is fundamentally linked to the penetration and speed of internet connections. As digital services evolve, media consumption is changing, especially among younger consumers, who are turning away from traditional linear media distribution models.

Paid media channels by age group



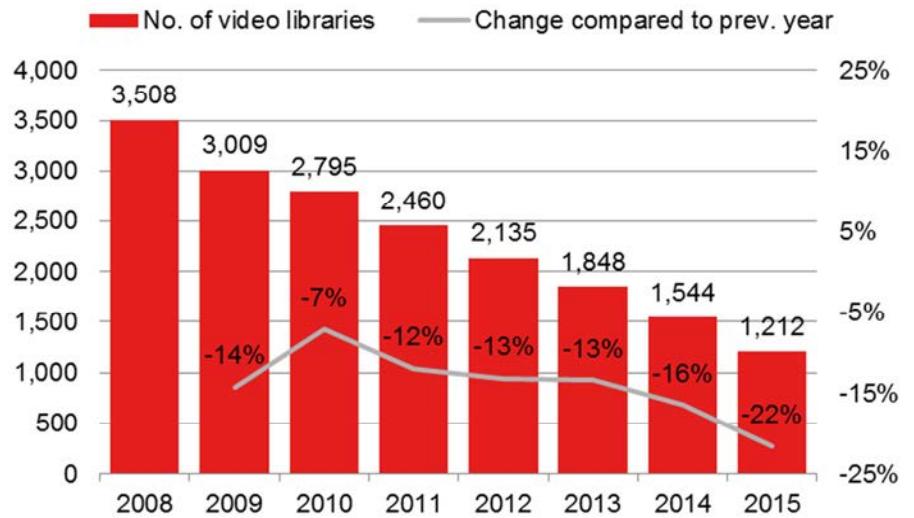
Sources: Nielsen, Warburg Research

Age is a determining factor in the rise of VoD services. Younger people tend to use online services more frequently and show greater willingness to switch from linear paid content to digital. Both the share of digital paid services and the willingness to cancel linear services in favour of digital decrease with the increasing age of consumers. However, the increasing penetration of digital on-demand services is only a matter of time as today's younger consumers get older.

For some years, the increasing acceptance of digital models has been becoming more apparent in the purchasing behaviour of consumers. From a purely physical perspective,

the distribution of film content has changed dramatically, as reflected in the revenue split by distribution channel. In the past, media content for the home entertainment market was distributed in the form of DVDs or Blu-Ray. Subsequently we discuss some data of the German media consumption market. Keeping in mind that, compared to international markets, the transformation from traditional to digital channels is lagging behind in Germany, we comprehend the statistics as a proxy for the general market trend.

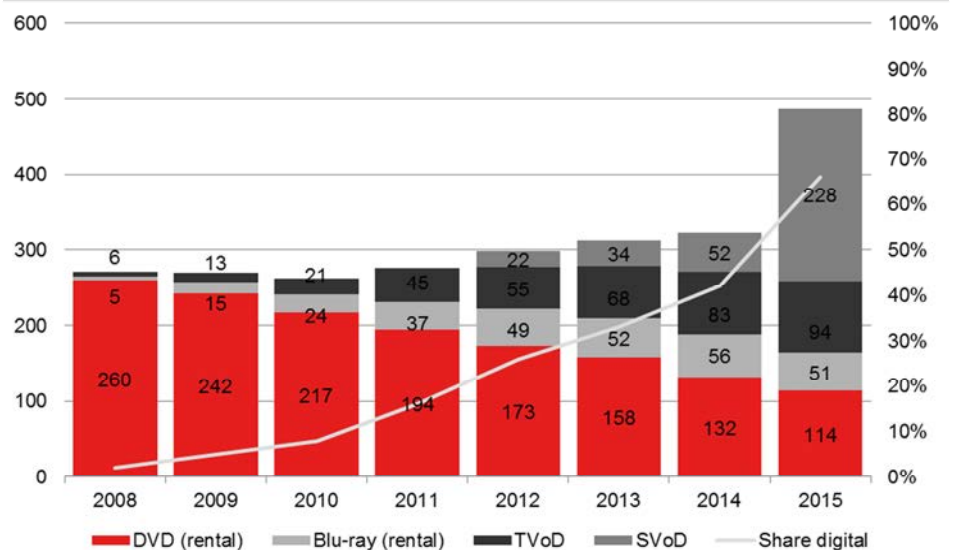
No. of video libraries in Germany 2008-2015



Sources: Goldmedia, Warburg Research

If we take the change in the number of bricks-and-mortar video libraries as an indicator of the switch to digital video distribution, the decrease in physical media distribution is clear to be seen. The number of video libraries in Germany more than halved between 2008 and 2015 and there is no sign of a recovery.

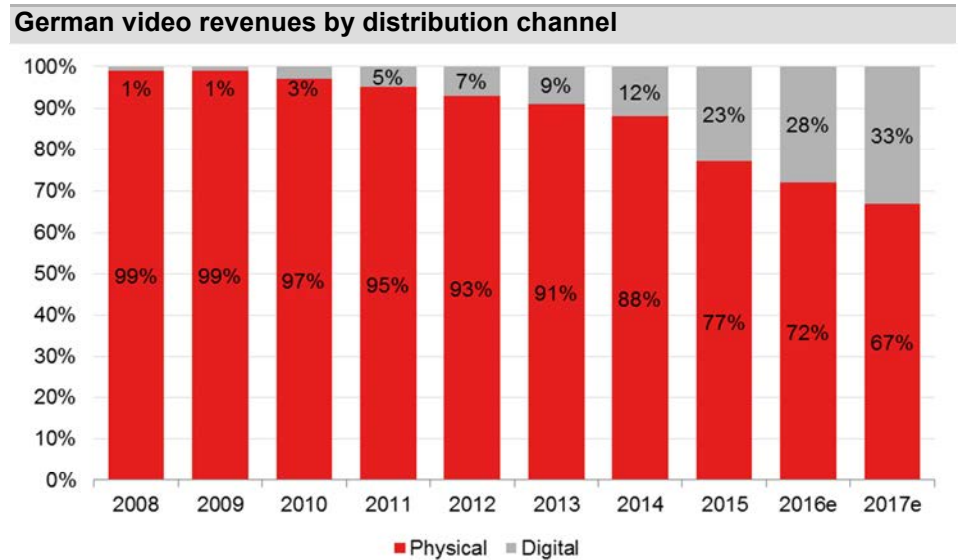
Revenues and share of digital channels in German video rental market



Source: Goldmedia, Warburg Research

Looking at the revenues of the German video rental market, we see a sharp increase in the market share attributable to digital distribution models. As of 2015, the digital models

made up around 70% of the revenues. The massive increase from around 40% in 2014 can mainly be traced back to an enormous increase in the subscription video-on-demand market. Substantial growth can also be seen in the transactional video-on-demand market over the past years, the section of the market in which Pantaflix is active. The market volume reached EUR 94m in 2014, after rising from EUR 6m in 2008. While these numbers are more modest than subscription video on demand (SVoD), they show that there is also consumer demand for transaction video on demand (TVoD) models.



Sources: Goldmedia, Warburg Research

Overall video revenue, including purchases, shows a similar situation. The proportion of revenue attributable to digital has grown from 1% in 2008 to 33% in 2017.

Market size and penetration

The worldwide streaming business was estimated at about USD 47bn in 2015 and is expected to reach around USD 75bn by 2020. The offerings can basically be divided into advertising-financed services, like YouTube, that are free of charge for users, and paid services with various payment approaches, such as a subscription-based model, a transaction-based model or a mixture of both. Another basic distinction can be made from the consumer’s point of view. With download-to-own, the user purchases a temporary unlimited right to download, save and consume the content. Download-to-rent, which is far more widespread, allows the user to consume the content within a limited timeframe.

Additional models include electronic-sell-through (EST) and advertising-supported VoD (AVoD). EST is the digital counterpart to physical Blu-Rays or DVDs. The customer buys the right to download a digital copy of the content with unlimited access. This usually costs more than TVoD content as the EST purchase comes with more comprehensive consumption rights. Nonetheless, prices vary widely, depending on the content.

AVoD is free of charge for the consumer but it exposes viewers to periodic advertising. As the content rights are paid for by advertising, these services usually do not offer the most recent or mainstream content but rather alternative and special interest material for which licencing rights are less expensive.

Video-on-demand distribution models

Distribution model	Payment	consumption restriction	Content library	Providers in Germany
Subscription VoD	flat-fee	unlimited until provider's licensing right expires	Limited to the licensing rights of Provider, partly with blockbusters	Netflix, Amazon Prime Video
Transaction VoD	Pay-per-view	limited timeframe	Usually large content catalogue	Pantaflix, Amazon Video, Apple iTunes
Advertising VoD	none	unlimited until provider's licensing right expires	Usually no blockbusters, non-mainstream content	Youtube.de, Watchbox.de
Electronic sell-through	Pay-per-download	unlimited	All kinds of content	Amazon Video

Source: Warburg Research

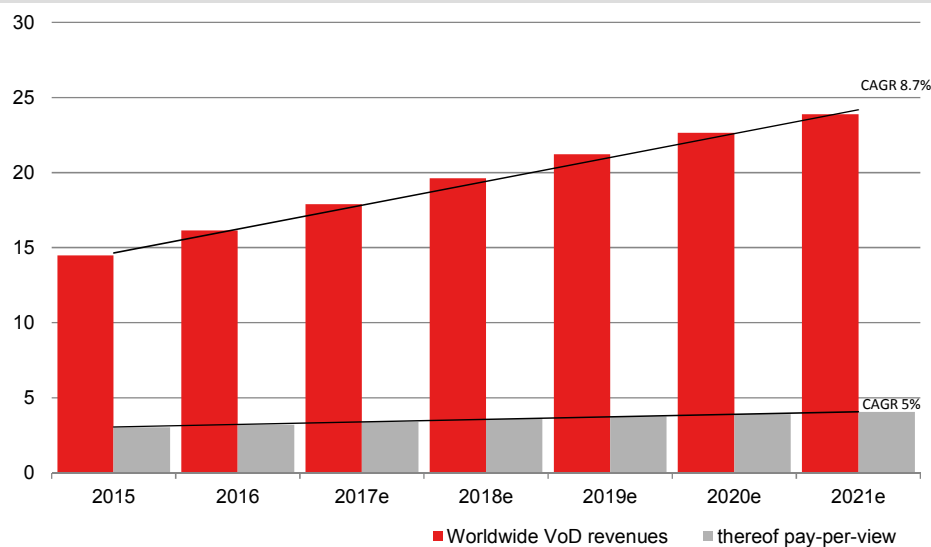
The subscription-based model gives the user unlimited access to the entire content library of the platform for a flat fee, paid on a regular basis (e.g. monthly). As companies with a subscription-based approach usually buy the licencing rights to distribute a movie for a predetermined period and region, the content can vary over time and depending on location.

The transaction-based model follows a pay-per-view approach. Customers have access to a broad choice of content but pay only for the content they consume. The prices per movie/series vary, with higher prices commanded for new releases or very popular content. Most services charge between EUR 1 and EUR 4 per film for a limited period of time, generally about 30 days. Once the customer has started watching the film or series the viewing must be completed within 24 to 48 hours.

VoD market growth

The international Video-on-Demand (VoD) business is growing fast. In 2015, estimated revenues amounted to USD 14.5bn and this market is expected to grow to USD 23.9bn in 2021, representing a CAGR of 8.7%. Pay-per-view models contributed a total of USD 3bn in 2015 and are expected to grow at a CAGR of 5% to a total of USD 4bn in 2021.

International Video-on-Demand revenues in USD bn



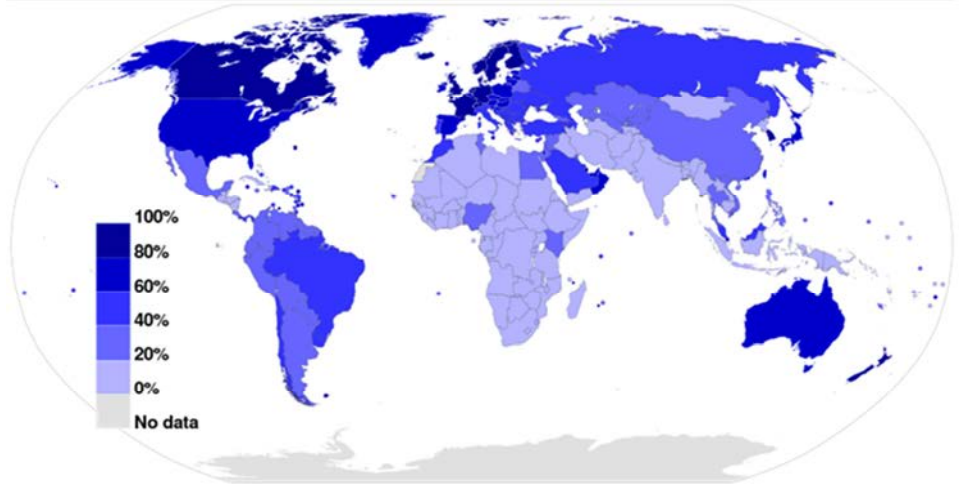
Source: Statista, Warburg Research

While the US market is showing first signs of saturation, not least owing to its pioneering role in the VoD industry, it is still growing at a CAGR of 3.7%.

This development is underpinned by the rising global internet penetration rate. As the graph below shows, the internet penetration rate is already very high in developed countries but lags far behind in the developing world, where there is clear catch-up

potential.

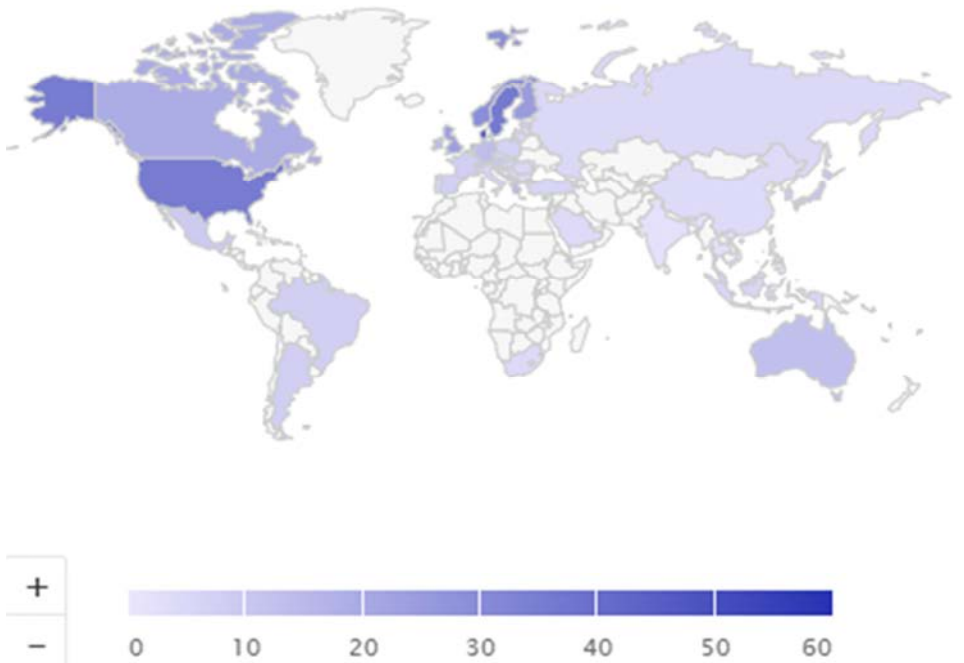
Global internet penetration in %



Source: Statista, Warburg Research

As uninterrupted streaming fundamentally depends on a high-speed internet connection, video-on-demand services are naturally more widespread in areas where broadband or high-speed internet is available and this varies greatly from region to region. The vast majority of people in north America, Europe or Australia have access to the internet but a good internet connection is rare in wide parts of Africa and south-east Asia.

Global video on demand penetration in %



Source: Statista, Warburg Research

Logically, there is a direct correlation between internet access statistics and VoD market penetration rates. The United States, which has the highest number of VoD users, is also home to the industry's biggest services. High numbers of VoD customers are also to be found in Europe, especially the Scandinavian countries, and Australia. It is no surprise that the internet penetration in these countries is very high as well. Some indications of saturation in the VoD business have even been noticed in the US market but the rest of the world still offers massive catch-up potential.

Only 10% of all films are offered by established players for the mass market

Only 10% of all films made are distributed globally via the traditional film distribution chain with its various intermediaries (according to Pantaflix). The vast majority of films are only distributed locally. The big global VoD players, like Netflix, Amazon Prime or iTunes, generally offer mainstream content for a broad customer base. These platforms usually do not offer the lesser known films or local content as, for these players, the expected demand is too low. In an international context, the films distributed most widely are produced in the Western world, especially in the US. However, the highest number of films is produced in Asia.

Film productions in global top 10 markets						
	2011	2012	2013	2014	2015	CAGR
India	1,255	1,602	1,724	1,966	-	16.1%
USA	818	728	738	707	791	-0.8%
China	588	745	638	618	686	3.9%
Japan	441	554	591	615	581	7.1%
France	272	279	270	258	300	2.5%
South Korea	186	204	207	248	269	9.7%
Germany	205	241	236	234	236	3.6%
Spain	200	182	235	224	254	6.2%
UK	358	369	347	310	201	-4.7%
Italy	155	166	167	201	185	4.5%
Worldwide	6,098	6,334	6,345	6,503	6,762	2.6%

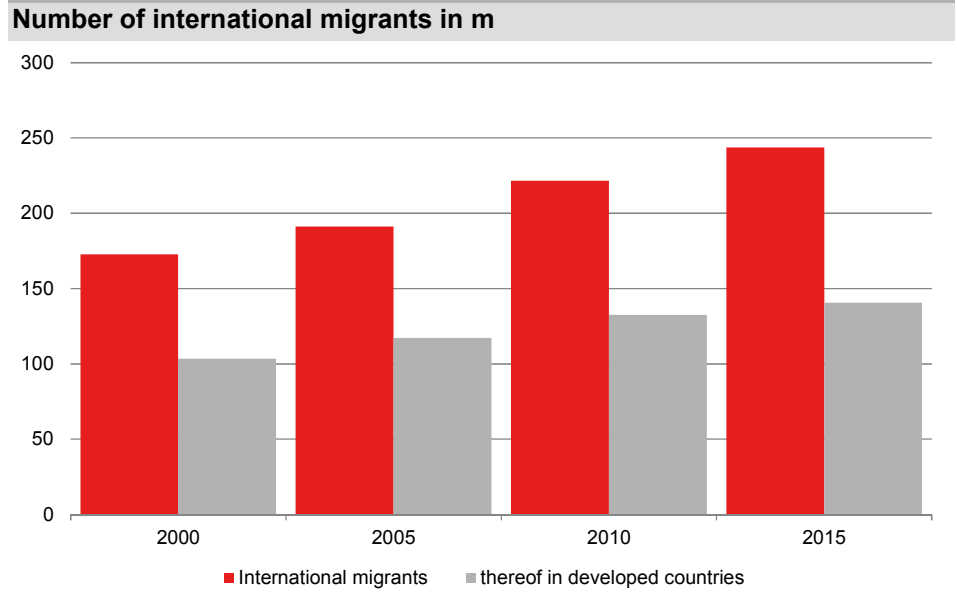
Sources: Goldmedia, Warburg Research

Nearly one-third of all films produced worldwide in 2014 came from India. The data for 2015 is missing but we expect this market continued to grow. Other film strongholds in the Asian region are China, Japan and South Korea, which are all among the top 10 global film markets.

Films from these countries are not adequately represented on VoD platforms. Pantaflix, offers a global distribution platform for the rights owners and producers of these films for the first time.

Local content for a global diaspora is a big niche...

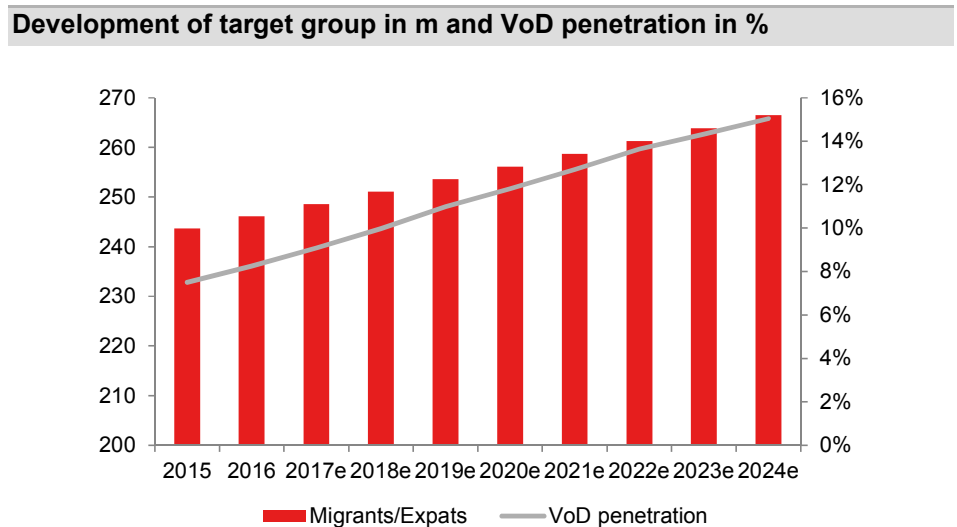
While the competitors concentrate mainly on a mainstream audience, Pantaflix focuses on the global diaspora and film enthusiasts. The company wants to serve this huge niche audience with content that is not available on other portals. The global diaspora, or expatriates, includes people of all nationalities resident outside their countries of origin.



Source: United Nations, Warburg Research

The number of international migrants has been rising steadily since the year 2000. Overall, the number of people living outside their countries of origin reached nearly 244m, of which more than 140m were located in developed countries. This can be considered as the target group of Pantaflix as internet services and video on demand penetration is significantly higher in these regions.

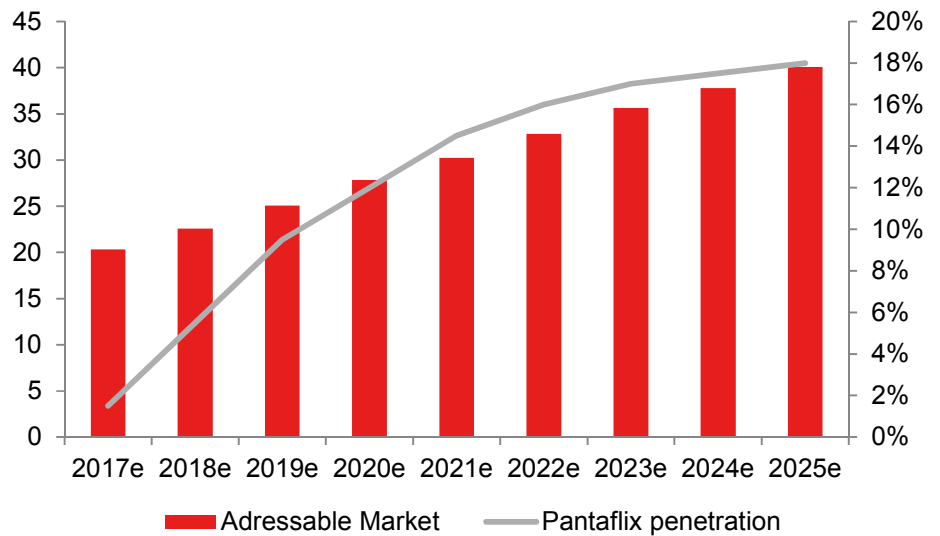
Below we demonstrate the expected development of the number of global migrants/expats, the target group of Pantaflix, and the respective global VoD penetration. If we limited the target group of the company to migrants in developed countries, which is the company's relevant target group for the nearer future, this would result in a higher individual penetration rate. But as the company follows a global approach and as we wish to make conservative estimates, we look at a global target group.



Source: Warburg Research

The total addressable market of the streaming business is expected to grow at a CAGR of 9.49% from about 18m people to nearly 38m people in 2024. We believe that Pantaflix can increasingly make inroads to this addressable market, from 0% at the start of business activities to 18% in 2025.

Addressable market (in million people) and penetration of Pantaflix in %



Source: Warburg Research

...and Pantaflix is well positioned to serve this demand

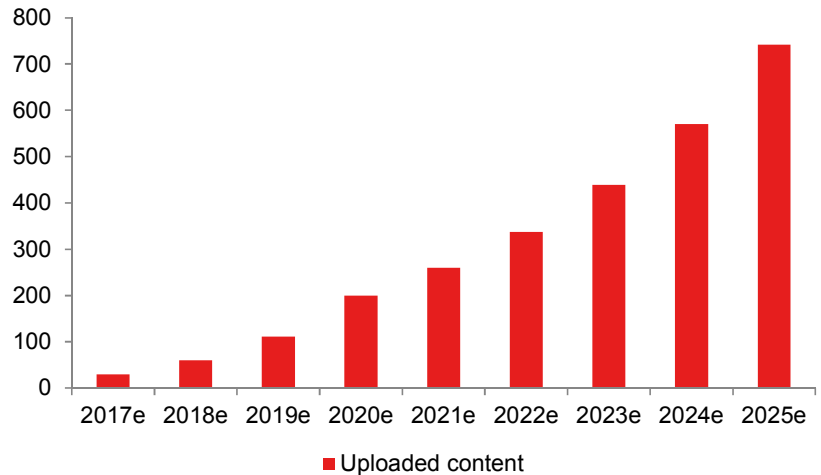
Pantaflix is well prepared to serve the needs of this target group. The technical conditions are predominantly met as the platform is broadly available on nearly all mobile devices. The six supported language versions are suitable to attract a broad base of international migrants, although we see further potential by adding Spanish, Hindi or Arabic versions.

Massive content additions to attract further customers...

Beginning from scratch in 2016, the company has been aiming for a film stock of around 40,000 at the end of 2017. Further additions are planned and the overall catalogue should reach about 1m titles. The joint venture with Chinese media mogul Bruno Wu is a promising step towards this goal. If Pantaflix is able to add the announced 100,000 Chinese films, the portal would make a significant step towards becoming the number one video on demand provider for approx. 50m Chinese people abroad.

The revenue sharing policy should help Pantaflix to accumulate more content than competitors. By allocating up to 75% of revenues to the rights holders and producers of a film, Pantaflix offers a monetary incentive to those willing to make their content available on the platform. The availability of the content on Pantaflix should not pose any risk to the domestic distribution of these films over the usual channels. The distribution by Pantaflix aims to make these films available in locations where they would not otherwise be accessible, benefiting all participants.

Uploaded content in k



Source: Warburg Research

...at nearly no cost

As Pantaflix is a transaction-based video-on-demand service, the company does not purchase film rights. There are no significant variable costs per film, which lends to economies of scale in Pantaflix's video-on-demand services. The fixed costs are limited to personnel and the IT costs of operating servers. However, EBIT development in the ramp-up phase is limited by high marketing costs and high customer acquisition costs. Against this backdrop, Pantaflix's target of becoming the world's largest film library seems achievable.

Disney deal as a first step towards attractive content additions

At the end of November 2017, the company announced a content-deal with the largest global film studio Disney. This includes the content addition of Disney's successful franchises like the "Star Wars" and "Pirates of the Caribbean" sagas, as well as non-exclusive distribution rights for films like "Frozen" on Pantaflix's film library. So far, the deal is limited to the German-speaking regions Germany and Austria and presumably to German and English language versions. Nonetheless, we see this deal as a potential milestone for Pantaflix.

Firstly, the regionally limited distribution rights open the door for further deals with Disney. The company stated that there would very likely be further agreements. A strong differentiator from other platforms would be multilingual distribution rights for blockbusters in all countries. Other platforms like Amazon video offer their customers the original version (mostly English) and the local language version. However, the Spanish version of a blockbuster, for instance, is not available in other countries than Spain. Pantaflix would become the first stop for viewers wishing to access other language versions.

Secondly, the Disney deal raises the probability of further content deals for Pantaflix with other major studios as Disney's demanding technical requirements of a VoD provider can be regarded by other film studios as a seal of quality. Intense competition between the studios means that competitors are unlikely to allow Disney to avail of an exclusive distribution channel and will want their films to appear on the platform too. For mainstream blockbusters, this would put Pantaflix in a position comparable to the big players like Apple and Amazon.

In this context, the purchase of large parts of 21st Century Fox by Disney, as announced in December 2017 could have different implications.

The deal would boost the film library of Disney with the Fox licenses. In the mid-term this could also affect Pantaflix as Fox films could potentially be included into the deal with Disney, giving access to the film library of another major studio. On the other hand, the larger content library puts Disney in a stronger negotiation position with Pantaflix. We deem it unlikely that a major studio will agree to the terms of the standard 75/25 Pantaflix revenue split. However, Disney could potentially gain better conditions by offering a larger high quality content library.

By taking over 21st Century Fox, Disney would increase its stake in US based VoD platform Hulu from 30% to 60% and becomes the majority shareholder. This strengthens a direct competitor of Pantaflix on the American market. Regarding Disney's plans to implement its own streaming service by 2019, could give rise to an even stronger competitor. However, as the streaming market is already a global and competitive market, the real threat for Pantaflix is a potential termination of the content deal by Disney if, for instance, Disney decides to distribute its content solely on own platforms, but we regard this scenario as rather unlikely.

Overall, the current Disney deal brings attractive content to the platform, which will draw a greater number of customers in the short and mid-term. Thereby the deal increases the probability of success of the platform as this depends on the number of customers and amount of added content.

P&L Pantaflix VoD platform

	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e
No. of expats/migrants	246.1	248.6	251.1	253.6	256.1	258.7	261.3	263.9	266.5
yoy	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
global VoD penetration	8.25%	9.08%	9.98%	10.98%	11.80%	12.69%	13.64%	14.32%	15.04%
yoy	10.0%	10.0%	10.0%	10.0%	7.5%	7.5%	7.5%	5.0%	5.0%
Total Adressable Market in m	20.3	22.6	25.1	27.8	30.2	32.8	35.6	37.8	40.1
Penetration rate	1.5%	5.5%	9.5%	12.0%	14.5%	16.0%	17.0%	17.5%	18.0%
Active customers in m	0.30	1.24	2.38	3.34	4.38	5.25	6.06	6.61	7.22
yoy		307%	92%	40%	31%	20%	15%	9%	9%
Uploaded content in k	30.0	60.0	111.0	199.8	259.7	337.7	439.0	570.6	741.8
yoy		100%	85%	80%	30%	30%	30%	30%	30%
Streams (p.a.) / active customer	4.0	6.0	6.5	7.0	7.5	8.0	8.0	8.0	8.0
		20%	20%	15%	15%	15%	10%	10%	10%
Total Streams (p.a.) in m	1.22	7.44	15.48	23.39	32.88	42.02	48.47	52.92	57.72
yoy		511%	108%	51%	41%	28%	15%	9%	9%
Avg. price per Stream after VAT	3.23	3.23	3.23	3.23	3.23	3.23	3.23	3.23	3.23
Gross Sales	3.94	24.06	50.02	75.60	106.26	135.80	156.66	171.02	186.55
yoy		511%	108%	51%	41%	28%	15%	9%	9%
Commission Pantaflix	25%	25%	25%	25%	25%	25%	25%	25%	25%
Net Sales	0.98	6.02	12.51	18.90	26.57	33.95	39.17	42.76	46.64
yoy		511%	108%	51%	41%	28%	15%	9%	9%
IT costs	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.4
yoy	20%	20%	20%	20%	20%	20%	20%	20%	20%
Personnel	3.2	4.0	5.4	5.6	5.8	5.9	6.1	6.3	6.5
average salary p.a. in EURm	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09
number of FTE's	40	50	60	62	64	66	68	70	72
Marketing	1.68	4.37	5.27	4.57	4.96	4.29	4.10	3.11	3.38
thereof Customer Acquisition costs in EURm	1.28	3.93	4.79	4.03	4.38	3.65	3.39	2.33	2.52
CAC Adwords EUR per customer	2	2	2	2	2	2	2	2	2
CAC Free movie EUR per customer	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
thereof other Marketing	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9
Payment costs	0.05	0.30	0.63	0.94	1.33	1.70	1.96	2.14	2.33
average fee per transaction	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
D&A	0.0	0.3	0.6	0.9	1.3	1.7	2.0	2.1	2.3
in % of sales	5%	5%	5%	5%	5%	5%	5%	5%	5%
Total Opex	5.3	9.4	12.4	12.6	14.0	14.4	15.1	14.8	15.9
in % of sales	538%	156%	99%	67%	53%	42%	39%	35%	34%
EBIT	-4.31	-3.34	0.12	6.31	12.52	19.53	24.08	27.92	30.74

Source: Warburg Research

Content Production

Strong film pipeline in content production

The pipeline of the content production business is, according to the company, well filled with different projects of various sizes. The 2016 annual report stated a pipeline of more than 20 projects, of which more than 10 were cinema projects. The 2015 annual report gave more detail on the content production pipeline, as shown below.

Content production pipeline 2015				
Film content pipeline				
Project	Genre	State	Shot	Release Date
Jack The Ripper	Thriller	Post-production	May-June 2016	H2 2016
You Are Wanted	Thriller	In progress	May-August 2016	H1 2017
national project	Action comedy	3rd draft of screenplay	H2 2016	H1 2017
international project	Thriller	Pre-production	H2 2016	H1 2017
international project	War drama	2nd draft of screenplay	H1 2017	H2 2017
national project	Comedy	Final screenplay	H1 2017	H2 2017
national project	Comedy	3rd draft of screenplay	H1 2017	H2 2017
national project	Family entertainment	3rd draft of screenplay	H2 2016	tba 2017
national project	Biopic	Development	H1 2017	tba 2017
national project	Adventure film	Final screenplay	H1 2017	tba 2017
national project	Comedy	Final screenplay	H1 2017	tba 2017
national project	Love story	1st draft of screenplay	H1 2017	tba 2017
national project	Children's film	1st draft of screenplay	H1 2018	tba 2018
national project	Drama	2nd draft of screenplay	H2 2017	tba 2018
national project	Historical drama	2nd draft of screenplay	H2 2017	tba 2018
national project	Comedy	2nd draft of screenplay	H1 2018	tba 2018
national project	Comedy	3rd draft of screenplay	H2 2017	tba 2018
national project	Comedy	1st draft of screenplay	H2 2017	tba 2018
national project	Coming of age	1st draft of screenplay	H2 2017	tba 2018
national project	Comedy	1st draft of screenplay	H2 2017	tba 2018
international project	Biopic	Development	H2 2017	tba 2018
national project	Drama	Development	H1 2018	tba 2018
national project	Mockumentary	Development	H1 2018	tba 2019
national project	Drama	1st draft of screenplay	H2 2018	tba 2019
national project	Drama	Development	H1 2018	tba 2019

Source: Warburg Research

The pipeline is well filled with a variety of projects in different project phases. Some of these projects, like “Jack The Ripper” and “You Are Wanted” have meanwhile been successfully released. In light of this and statements by management we are confident that, despite the typical uncertainties of project businesses, our top-line and bottom-line growth estimates in the content production business seem achievable.

P&L Pantaflix Content Production										
	2016	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e
No. of projects p.a.	4	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
<i>yoy</i>		25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
thereof larger ones	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
<i>yoy</i>		100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
thereof smaller ones	1.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
<i>yoy</i>		200.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Avg. rev. per larger project	8.1	8.9	10.7	12.8	14.1	15.2	16.4	17.2	18.0	18.9
<i>yoy</i>		10%	20%	20%	10%	8%	8%	5%	5%	5%
Avg. rev. per smaller project	2.6	2.8	2.9	2.9	3.0	3.0	3.1	3.2	3.2	3.3
<i>yoy</i>		10%	2%	2%	2%	2%	2%	2%	2%	2%
Other revenues	5.2	6.7	7.4	8.2	9.0	9.9	10.9	12.0	13.2	14.5
<i>yoy</i>		30%	10%	10%	10%	10%	10%	10%	10%	10%
Total Sales in EURm	15.8	33.0	37.4	42.6	46.1	49.4	52.9	55.8	58.9	62.2
<i>yoy</i>		108.2%	13.4%	13.9%	8.4%	7.2%	7.0%	5.5%	5.6%	5.6%
Material costs	3.6	4.9	5.0	5.5	5.8	5.9	6.1	6.1	6.5	6.8
<i>in % of sales</i>	22.9%	15.0%	13.5%	13.0%	12.5%	12.0%	11.5%	11.0%	11.0%	11.0%
Personnel expenses	0.8	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.2
<i>in % of sales</i>	5.2%	4.5%	4.3%	4.0%	4.0%	3.8%	3.8%	3.7%	3.7%	3.6%
Other Operating Expenses	1.5	2.8	3.1	3.5	3.7	3.9	4.0	4.1	4.4	4.5
<i>in % of sales</i>	9.3%	8.5%	8.4%	8.2%	8.0%	7.8%	7.6%	7.4%	7.4%	7.2%
Other Operating Income	0.8	2.3	2.2	2.1	2.2	2.3	2.4	2.5	2.6	2.7
<i>in % of sales</i>	5.3%	7.0%	6.0%	5.0%	4.8%	4.6%	4.6%	4.5%	4.4%	4.3%
D&A	10.9	22.7	25.8	29.4	31.8	34.1	36.5	38.5	40.6	42.9
<i>in % of sales</i>	68.8%	69.0%	69.0%	69.0%	69.0%	69.0%	69.0%	69.0%	69.0%	69.0%
Total Opex	16.0	29.7	33.3	38.0	40.9	43.5	46.2	48.3	51.1	53.8
<i>in % of sales</i>	68.8%	69.0%	69.0%	69.0%	69.0%	69.0%	69.0%	69.0%	69.0%	69.0%
EBIT	-0.1	3.3	4.0	4.6	5.2	5.9	6.7	7.5	7.8	8.4

Source: Warburg Research

We estimate increasing revenues especially for larger projects and follow-up projects like "You are Wanted 2", which usually generate higher returns. We also see future project revenues rising as the successful track record of Pantaleon Films makes future content more attractive for distributors.

Group P&L

Summary of Group P&L

In the table below we show the combined P&L of the Pantaflix group for the detailed forecast period. We expect break even in 2018, when losses from the VoD business decline.

P&L Pantaflix Group

	2016	2017e	2018e	2019e
Total revenues	15.8	33.9	43.4	55.1
<i>yoy</i>		114%	28%	27%
thereof VoD	0.0	1.0	6.0	12.5
<i>yoy</i>		<i>n.m.</i>	511%	108%
thereof Content Production and Others	15.8	33.0	37.4	42.6
<i>yoy</i>		108%	13%	14%
Consolidation	0.0	0.0	0.0	0.0
<i>yoy</i>				
Sales contribution in %				
<i>VoD</i>	0%	3%	14%	23%
<i>CP & Others</i>	100%	97%	86%	77%
<i>Consolidation</i>	0%	0%	0%	0%
Total EBIT	-1.6	-1.0	0.7	4.7
<i>yoy</i>		-35%	-168%	580%
<i>margin</i>	-10%	-3%	2%	9%
thereof VoD	-1.4	-4.3	-3.3	0.1
<i>margin</i>	<i>n.m.</i>	-438%	-56%	1%
thereof Content Production and Others	-0.1	3.3	4.0	4.6
<i>margin</i>	-1%	10%	11%	11%
thereof Holding	0.0	0.0	0.0	0.0
Net financial result	0.1	0.1	0.2	0.2
EBT	-1.4	-0.9	0.9	4.9
Total taxes	0.1	0.0	0.0	0.5
<i>Tax rate</i>	-4%	0%	0%	10%
Net profit	-1.5	-0.9	0.9	4.4
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0
EPS	-1.35	-0.72	0.70	3.48

Source: Warburg Research

Valuation

- DCF price target points to EUR 250
- Sensitivity analysis shows three additional scenarios
- Relative valuation with limited significance

DCF approach

In our base case DCF approach we have applied a WACC of 9.7% which includes a beta of 1.6 and a low target debt ratio as streaming will be the main contributor with a negligible debt ratio. We apply revenue to grow at a CAGR of 27% for the detailed forecast period, i.e. 2017e-19e, and a CAGR of 8.8% for transitional period, i.e. 2020e-2029e. For terminal growth rate, we applied 3%. For profitability, we model a 44pp margin improvement from 0 to 44% on EBIT level throughout the entire time period. The margin expansion is expected to result from dynamic growth of the streaming platform which is expected to carry a higher EBIT margin, i.e. up to 50%, than the content production segment with margins of rather 10-12%. Based on our assumptions we derive a fair value per share of EUR 250.

Sensitivity analysis

As the level of information and the visibility of the success of the Pantaflix streaming platform is rather limited, we decided to conduct a scenario analysis that based on three different DCF approaches, in addition to our base case scenario. It shows how our price target would change if certain KPI assumptions are missed or exceeded. The main KPI for the success of the story is the number of active video-on-demand users that Pantaflix can win for its platform (see table below).

Scenario description

The scenario “**Closure of streaming business**” anticipates the failure of the Pantaflix streaming business and the subsequent shutdown of the platform after a short time. In this scenario we derive a long-term EBIT margin of 13.5% stemming mainly from the content production business. Given the company’s track record as well as the in-house expertise in this business segment, a slightly lower beta of 1.4 can be justified. Considering the higher target debt ratio of 30%, from the film production business, we derive a WACC of 7.05%. Overall, the scenario delivers a PT of EUR 94.

The scenario “**Streaming business is not successful**” implies that the Pantaflix streaming platform can attract about 3m active customers by FY 2025. Given the dynamic market environment for video-on-demand platforms, this scenario is unsatisfactory especially considering the costs of the project. Nevertheless given the long-term margin potential of this business, we applied a group EBIT margin of up to 13.4% and slightly higher beta of 1.6 based on the early market phase of the Pantaflix streaming platform. We derive a PT of EUR 61 for this scenario.

The scenario “**Blue Sky**” implies that the Pantaflix platform can attract 10.8m active customers by FY 2025. In this scenario the full margin impact of the promising Pantaflix streaming business model becomes visible. We model a 43.3% EBIT margin for FY 2025 and apply a beta of 1.6 to account for the associated risks and low visibility. We derive a PT of EUR 361 for this scenario.

Scenario analysis			
Scenario	No. VOD User by 2025	Price Target in EUR per share	Assumptions
Closure of streaming business	0	94	Terminal growth: 2.5% EBIT margin '25: 13.5% WACC: 7.05% Beta: 1.4
Streaming business is not successful	3m	61	Terminal growth: 3% EBIT margin '25: 13.4% WACC: 9.7% Beta: 1.6
Blue sky scenario	10.8m	361	Terminal growth: 3% EBIT margin '25: 43.3% WACC: 9.7% Beta: 1.6
Base case scenario	7.2m	250	Terminal growth: 3% EBIT margin '25: 34.6% WACC: 9.7% Beta: 1.6

Source: Warburg Research

DCF model

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	
Sales	33.9	43.4	55.1	65.0	76.0	86.8	95.0	101.7	108.9	116.5	124.6	132.1	138.7	
Sales change	124.8 %	27.8 %	26.9 %	18.1 %	16.9 %	14.3 %	9.4 %	7.0 %	7.1 %	7.0 %	7.0 %	6.0 %	5.0 %	3.0 %
EBIT	-1.0	0.7	4.7	11.5	18.5	26.2	31.6	35.8	39.1	43.1	48.0	54.2	59.0	
EBIT-margin	-3.0 %	1.6 %	8.6 %	17.7 %	24.3 %	30.2 %	33.2 %	35.2 %	36.0 %	37.0 %	38.5 %	41.0 %	42.5 %	
Tax rate (EBT)	0.0 %	0.0 %	10.2 %	25.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	
NOPAT	-1.0	0.7	4.2	8.6	12.9	18.4	22.1	25.0	27.4	30.2	33.6	37.9	41.3	
Depreciation	22.8	26.1	30.0	32.5	38.0	43.4	47.5	45.7	49.0	46.6	49.9	52.8	55.5	
in % of Sales	67.1 %	60.1 %	54.5 %	50.0 %	50.0 %	50.0 %	50.0 %	45.0 %	45.0 %	40.0 %	40.0 %	40.0 %	40.0 %	
Changes in provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	-2.1	0.5	0.8	2.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	
- Capex	26.9	30.6	34.9	39.0	45.6	47.8	52.2	50.8	49.0	46.6	49.9	52.8	55.5	
Capex in % of Sales	79.3 %	70.5 %	63.4 %	60.0 %	60.0 %	55.0 %	55.0 %	50.0 %	45.0 %	40.0 %	40.0 %	40.0 %	40.0 %	
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Free Cash Flow (WACC Model)	-3.1	-4.4	-1.5	0.0	5.5	14.2	17.5	20.1	27.5	30.3	33.8	38.1	41.4	44
PV of FCF	-3.1	-4.0	-1.3	0.0	3.9	9.0	10.1	10.6	13.3	13.3	13.5	13.9	13.8	219
share of PVs	-2.69 %			32.45 %										70.25 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	5.00 %	Financial Strength	1.40
Cost of debt (after tax)	2.1 %	Liquidity (share)	1.60
Market return	7.00 %	Cyclicality	1.70
Risk free rate	1.50 %	Transparency	1.60
		Others	1.50
WACC	9.68 %	Beta	1.56

Valuation (m)

Present values 2029e	93		
Terminal Value	219		
Financial liabilities	6		
Pension liabilities	0		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	12	No. of shares (m)	1.3
Equity Value	318	Value per share (EUR)	250.41

Sensitivity Value per Share (EUR)

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		2.25 %	2.50 %	2.75 %	3.00 %	3.25 %	3.50 %	3.75 %			-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.75	10.7 %	194.65	198.40	202.39	206.64	211.17	216.03	221.23	1.75	10.7 %	196.70	200.01	203.32	206.64	209.95	213.27	216.58
1.66	10.2 %	212.50	216.99	221.78	226.90	232.39	238.29	244.65	1.66	10.2 %	216.22	219.78	223.34	226.90	230.46	234.01	237.57
1.61	9.9 %	222.38	227.30	232.56	238.20	244.27	250.80	257.86	1.61	9.9 %	227.12	230.82	234.51	238.20	241.90	245.59	249.28
1.56	9.7 %	232.98	238.39	244.18	250.41	257.13	264.38	272.25	1.56	9.7 %	238.90	242.74	246.57	250.41	254.25	258.09	261.93
1.51	9.4 %	244.38	250.33	256.73	263.63	271.09	279.17	287.97	1.51	9.4 %	251.64	255.64	259.64	263.63	267.63	271.62	275.62
1.46	9.2 %	256.66	263.24	270.32	277.99	286.30	295.33	305.21	1.46	9.2 %	265.49	269.65	273.82	277.99	282.15	286.32	290.49
1.37	8.7 %	284.29	292.38	301.16	310.70	321.13	332.56	345.16	1.37	8.7 %	297.05	301.60	306.15	310.70	315.26	319.81	324.36

- High EBIT margin resulting of platform business with a low cost basis in steady state
- High depreciation rates result from typical accounting practices in content production business

Relative Valuation of rather limited significance
Relative valuation

Below we have outlined a broad peer group comparison. However, given the lack of a track record and the early stage of the VoD business of Pantaflix, a comparison with global players in the individual business segments is of rather limited significance.

Peer Group comparison

Company	LC	Price in LC	MC in LC m	EV in LC m	EPS			Sales			EBITDA			EBIT		
					17e	18e	19e	17e	18e	19e	17e	18e	19e	17e	18e	19e
<i>Streaming</i>																
Netflix Inc	USD	278.80	120,984.8	124,110.4	169	3.13	5.03	11,681.3	15,709.0	19,298.8	1,088.8	1,923.0	2,978.9	831.0	1,629.8	2,616.3
Amazon.com Inc	USD	1,437.82	692,845.5	723,332.2	1170	16.33	24.85	177,289.2	228,857.7	276,563.6	19,026.2	25,654.4	33,965.1	3,487.6	6,236.4	10,275.0
<i>Content Production</i>																
Walt Disney Co/The	USD	110.11	165,876.9	191,698.6	5.76	6.55	7.06	55,634.6	58,647.3	60,938.8	17,313.1	18,078.7	18,328.8	14,598.4	15,211.9	15,966.1
Constantin Medien AG	EUR	2.30	214.8	261.6	-0.10	0.07	0.11	265.0	141.5	150.5	62.6	9.8	15.4	36.3	5.4	11.2
Lions Gate Entertainment Corp	USD	34.72	2,824.5	9,359.3	0.83	1.52	1.66	3,141.8	4,138.2	4,410.9	264.6	625.9	681.1	n.a.	349.5	386.7
Time Warner Inc	USD	94.45	73,538.1	94,499.6	6.23	6.72	7.22	31,037.2	32,492.2	33,883.2	8,867.4	9,275.3	9,656.4	8,073.9	8,583.2	8,990.1
PANTAFlix AG	EUR	191.50	243.3	242.9	-0.72	0.70	3.48	33.9	43.4	55.1	21.8	26.8	34.7	-1.0	0.7	4.7

Source: Warburg Research

Peer Group comparison

Company	LC	Price in LC	MC in LC m	EV in LC m	P / E			EV / Sales			EV / EBITDA			EV / EBIT		
					17e	18e	19e	17e	18e	19e	17e	18e	19e	17e	18e	19e
<i>Streaming</i>																
Netflix Inc	USD	278.80	120,984.8	124,110.4	165.2 x	89.0 x	55.5 x	10.6 x	7.9 x	6.4 x	114.0 x	64.5 x	41.7 x	149.4 x	76.2 x	47.4 x
Amazon.com Inc	USD	1,437.82	692,845.5	723,332.2	122.9 x	88.0 x	57.9 x	4.1 x	3.2 x	2.6 x	38.0 x	28.2 x	21.3 x	207.4 x	116.0 x	70.4 x
Average					144.0 x	88.5 x	56.7 x	7.4 x	5.5 x	4.5 x	76.0 x	46.4 x	31.5 x	178.4 x	96.1 x	58.9 x
<i>Content Production</i>																
Walt Disney Co/The	USD	110.11	165,876.9	191,698.6	19.1 x	16.8 x	15.6 x	3.4 x	3.3 x	3.1 x	11.1 x	10.6 x	10.5 x	13.1 x	12.6 x	12.0 x
Constantin Medien AG	EUR	2.30	214.8	261.6	neg.	35.3 x	20.9 x	10 x	18 x	17 x	4.2 x	26.7 x	17.0 x	7.2 x	48.4 x	23.4 x
Lions Gate Entertainment Corp	USD	34.72	2,824.5	9,359.3	42.0 x	22.9 x	20.9 x	3.0 x	2.3 x	2.1 x	35.4 x	15.0 x	13.7 x	n.a.	26.8 x	24.2 x
Time Warner Inc	USD	94.45	73,538.1	94,499.6	15.2 x	14.1 x	13.1 x	3.0 x	2.9 x	2.8 x	10.7 x	10.2 x	9.8 x	11.7 x	11.0 x	10.5 x
Average					25.4 x	22.3 x	17.6 x	2.6 x	2.6 x	2.4 x	15.3 x	15.6 x	12.7 x	10.7 x	24.7 x	17.5 x
Average (all)					72.9 x	44.4 x	30.6 x	4.2 x	3.6 x	3.1 x	35.5 x	25.9 x	19.0 x	77.8 x	48.5 x	31.3 x
Median (all)					42.0 x	29.1 x	20.9 x	3.2 x	3.0 x	2.7 x	23.2 x	20.8 x	15.4 x	13.1 x	37.6 x	23.8 x
PANTAFlix AG	EUR	191.50	243.3	242.9	neg.	273.6 x	55.0 x	7.2 x	5.6 x	4.4 x	11.2 x	9.1 x	7.0 x	neg.	350.5 x	51.5 x

Source: Warburg Research

Company & Products

Historical background

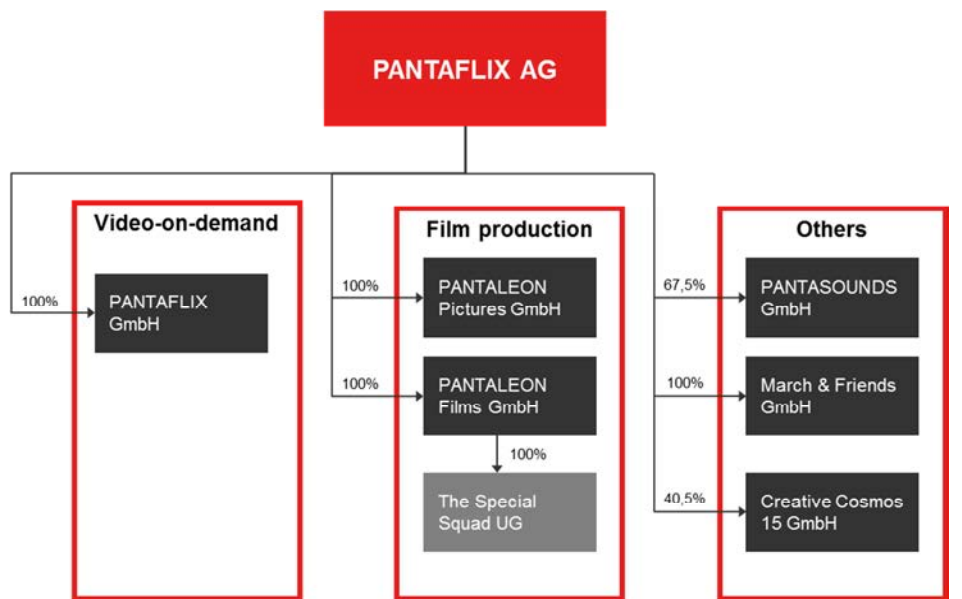
PANTALEON Entertainment GmbH, a German film production company, was founded in 2009. It was behind several successful films such as, “What a Man” (2011) “Schlussmacher” (2013) and “Vaterfreuden” (2014), all featuring the well-known German actor Matthias Schweighöfer in a leading role. In 2011, the company entered a milestone EUR 40m production deal with Warner Bros. After numerous box-office blockbusters in Germany, Pantaleon became financially autonomous, but maintained Warner Bros. and other strong partners for project distribution. Indisputably, the public prominence of Schweighöfer, who is also a co-founder, was of enormous advantage to the company. Pantaleon went public in 2015 as Pantaleon Entertainment AG.

In 2015, the company diversified its business model towards the strongly-growing streaming business by developing its own video-on-demand platform, Pantaflix. In July 2016, a first beta version was launched in Europe and the United States. On 19 December 2016, Pantaflix became available as an iOS-application and two days later, the company ended the Beta stage of the platform and started active marketing.

On 1 March 2017, the company switched from entry standard to the new Scale standard on the Frankfurt Stock Exchange and in July 2017, the company was renamed Pantaflix AG, to reflect the future focus on the VoD market and the confidence in the company’s own platform.

Company description

Organisational structure



Source: Warburg Research

Pantaflix is a fully integrated media company, mainly active in the fields of video-on-demand services and content production. The original business of the company was film production mainly for the German-speaking area. The business is now divided into three pillars, video-on-demand, film production and others.

Video-on-Demand

The VoD business is part of Pantaflix GmbH, which operates the namesake platform Pantaflix. The company aims to make Pantaflix the largest streaming platform for global access to local, rather than mainstream mass market, film material.

User interface

The user interface is intuitive and designed to provide consumer orientation and an overview of possibly interesting content. The portal is available in English, German, Polish, French, Turkish and Mandarin. A Spanish version is planned. Consumers can filter films by language and genre. They register by email and provide data on their location if they want to watch a movie. The payment options include credit card and PayPal, but also upcoming services like Amazon Pay, Apple Pay and Android Pay.

Target group

Pantaflix mainly targets people of any nationality that are resident outside their country of origin but who wish to watch films from their home countries or in their native languages. Pantaflix.com is available worldwide and aims to become the number one portal for expatriates. A second target group is film enthusiasts seeking access to alternative film material, which is not available in mainstream media or streaming portals.

Content

The nature of its content differentiates Pantaflix from competitors. While the big streaming platforms are competing for attractive licences for a mainstream audience, Pantaflix focuses on alternative content that is either only available via traditional distribution channels or is unattractive for mainstream streaming portals, owing to its niche character. Pantaflix offers films in a wide variety of languages and offers a global distribution platform for smaller-scale film productions from around the world.

Films, rather than series, have been the main focus of the platform so far but series have been added in December 2017 as well. Methods of price setting for series and proceeds allocation are still unknown but is expected to be similar to the 75%/25% system applied to the film content.

The platform offers film content in 36 languages. Of the films available on the platform (self-counted, as of January 2018) in Germany, the greatest number of films are in German (1345 films) and English (882 films), followed by French (135 films), Turkish (150 films), Arabic (106 films) and Russian (76 films). These numbers are far from the envisaged numbers of films but content varies from country to country, meaning that the total sum is potentially much higher. Nevertheless, we expect that massive additions are soon to come, as the company has signalled that while there is a strong pipeline of content, its accessibility is currently hindered by a bottleneck in making the films available on the platform.

Content available on Pantaflix in Germany (self-counted; January 2018)

Content on platform per language (Germany)	
Language	No. of films
Amharic	2
Arabic	106
Chinese	9
Czech	2
Danish	7
Dutch	5
English	882
Estonian	4
Filipino	1
Finnish	4
French	135
German	1345
Greek	6
Guarani	1
Hebrew	18
Hindi	83
Icelandic	2
Indonesian	1
Italian	29
Mongolian	14
Norwegian	10
Polish	64
Portuguese	10
Romanian	3
Russian	76
Serbian	3
Slovenian	1
Spanish	36
Swahili	3
Swati	1
Swedish	8
Swiss German	8
Tagalog	1
Turkish	150
Ukrainian	1
Zulu	25
No Dialogue	20
Unknown	10

Source: Warburg Research

Producers

Pantaflix creates an entirely new distribution channel for film producers. The platform gives producers the opportunity to make their films available to an otherwise inaccessible international audience. Pantaflix claims that only 10% of all films produced annually are distributed outside national borders, which implies that the remaining 90% can now potentially reach new audiences at no extra cost for the producer. The platform's transaction-based video-on-demand service generates revenue for both the producer and Pantaflix whenever a film is watched.

In conventional film distribution channels, producers sell the rights to their content and receive 10% of the proceeds. Intermediary agents, such as local distributors, also receive a share. Pantaflix cuts out the intermediate distributors and the associated costs and reduces the distribution chain to film producer, online portal, consumer. For each

film watched, the producer receives up to 75% of the revenue and Pantaflix 25%. Pantaflix does not purchase licencing rights, which gives producers the flexibility to select the countries in which films should be available on the Pantaflix platform. This is important as film rights for the target markets are sold in advance of the completion of a film.

Pricing

Pantaflix is a transaction-based video-on-demand platform. Consumers pay for each film individually and do not pay a subscription to Pantaflix while producers are free to determine the price of their content. The average price-per-view is currently between EUR 2.99 and 5.99. The lowest price is EUR 0.99 and the most expensive EUR 9.99. Pantaflix reserves the right to finally approve the pricing of a film before it is available for consumers.

Technology

Pantaflix can be accessed on a variety of devices and the website supports the four most used browsers, Chrome, Firefox, Safari and Microsoft Edge. On mobile devices, the content is available via the Pantaflix app for iOS as well as Android. The platform can also be accessed via Amazon Fire devices and an increasing amount of smart TVs and other devices, such as consoles. However, the development process is ongoing.

There is no clear standard to be fulfilled by films in terms of resolution. Resolutions that can be handled by the platform range from standard definition up to 1920x1080p depending on the quality uploaded by the licence owner. Stereo sound is obligatory in terms of audio quality but 5.1 is recommended by the company. The platform also supports several video and audio codecs. Pantaflix gives the content owner a great deal of flexibility to upload the content in his preferred format, which means however that the technical quality of the content can vary widely.

Film production

The subsidiaries Pantaleon Films GmbH and Pantaleon Pictures GmbH are mainly responsible for film production, the original business of the company. Pantaleon Films is responsible for development, finance, production and control of the rights to the company's own films while Pantaleon Pictures is mainly a commissioned producer. The company produces entertaining content for a mainstream audience. Most of the cinema projects to date have been in the comedy genre with very successful films in the German-speaking countries such as "Vaterfreuden", "Der geilste Tag" or "Der Nanny". In 2017, the company produced its first international thriller series "You Are Wanted", which was distributed by Amazon video-on-demand in more than 200 different territories. Remarkably, the series was the first German Amazon Originals series ever and met with resounding international success. Amazon has ordered a second season, which just finished production phase and is expected to be available on Amazon Video in 2018.

The company benefits enormously from the involvement of Matthias Schwieghöfer and his public prominence in Germany, which almost guarantees box-office success, and from its partnerships with large players in the film and media industry, which lowers the financial risk associated with film production. In 2011, Pantaleon Films signed a cooperation contract with Warner Bros., which provided the company with some EUR 40m for film financing and business ventures.

A film budget is basically built upon three pillars. Of foremost importance is the pre-sale of temporary and regional film and licensing rights, which are sold by the company before the completion of a film in the form of minimum guaranteed payments. Financial support from the state forms the second pillar, which is mostly provided during, or in advance of, the production phase via conditionally repayable loans. The last pillar is the producers' own funds.

Pantaleon Films' financing strategy for most projects includes an own equity investment

of less than 5% while the company receives up to 60% of the back-end earnings. The company's cooperation with global partners like Warner Bros. or Amazon is supportive not only in terms of finance but also in terms of the high public awareness and wide reach of those players.

Others

The business segment Others comprises the activities of Pantasounds, March & Friends and the joint venture Creative Cosmos 15. These businesses support the company's coverage of as many parts of the value chain of a film project as possible.

Pantasounds is the company's own music label. It was founded to produce the film music and soundtracks. Own artists are promoted and marketed exclusively by the distribution partner Universal Music, a global market leader in the music industry.

March & Friends acts as an interface between the film and platform companies of PANTAFLIX and the marketing industry. The subsidiary produces commercials for external advertising partners and is responsible for various aspects of commercialisation, such as product placement.

Creative Cosmos 15 is a joint venture of Pantaflix and other relevant players in the German film and marketing industry, including a well-known German television presenter, Joko Winterscheidt. The purpose of the company is to create excellent marketing products in the television and video-on-demand environment. Pantaflix holds 40.5% of the shares in the joint venture.

Management

Dan Maag (CEO), born in 1975, is one of the founding members of Pantaflix. He became executive director of Pantaleon Entertainment GmbH in 2012 and has managed the company since then. He was at the helm for the floatation and the company's realignment towards video-on-demand. While still a law student, he started to work in the film production business. Later, he founded his own production company and was involved in several blockbusters such as Oliver Stone's "Alexander".

Stefan Langefeld (COO) joined the company in May 2017. The former head of TV and movies at iTunes for Central and Eastern Europe was responsible for the rollout of Apple's video business in more than 60 countries. His 10 years with Apple and his experience in the video-on-demand business make him the ideal candidate to guide the global expansion of pantaflix.com.

Nicolas Paalzow (CPO) was announced as Chief Production Officer from 1 November 2017. He has worked in various management positions in German TV channels Sat.1, ProSieben and Kabel 1, inter alia as the managing director of ProSieben & Sat.1. He is also managing director of Creative Cosmos 15.

Classical film distribution and exploitation

Film value chain

For decades, the monetisation of film followed strict distribution rules and was limited to predefined exploitation windows. Digitalisation, however, is changing the rules and presents new opportunities in the areas of film distribution and licencing rights.

Under the established rules, lock-up periods are determined for each stage of exploitation. According to German film funding law (Filmförderungsgesetz, FFG), films are first made exclusively available in cinema theatres for a period of six months after the premiere. The home video sector, including distribution by DVD/Blu-ray and VoD, is next in line and also enjoys a six-month period of exclusivity before the film material can be made available to linear pay-TV. After another six months, the content can be shown on free-TV.

Exploitation windows and lockup periods

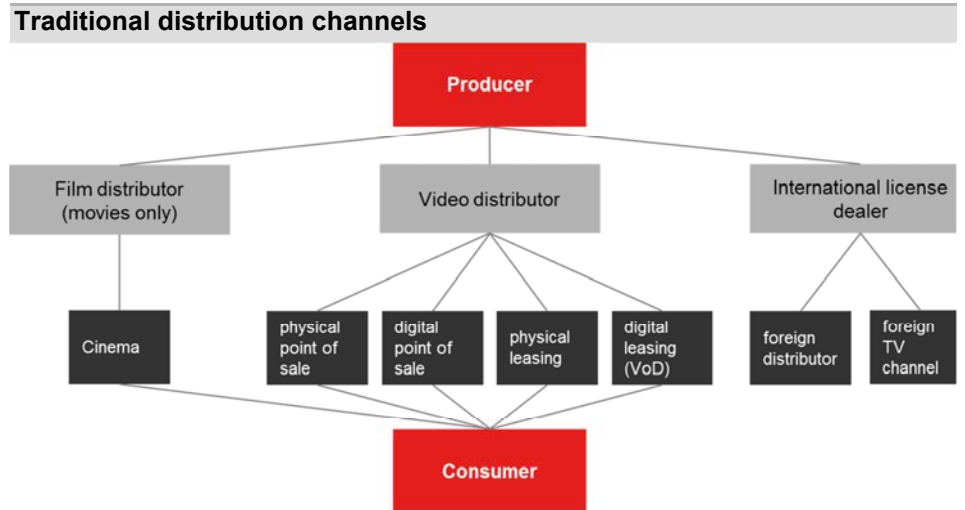


Source: Warburg Research

Digitalisation questions the established chronological order. Films that do not receive FFG funding are not bound by these rules, and much shorter lock-up periods are possible. Streaming providers like Netflix, Amazon and others produce exclusive content that is never shown in cinemas while there have also been first attempts to make films available to cinemas and VoD services at the same time.

Traditional distribution channels

On completion of a film, the producer owns the rights. Then, either a sales agent is engaged to distribute the film or the producer negotiates with distributors directly. Depending on the exploitation timeframes, the rights are usually given to a number of different distributors, who sell the rights to cinemas. On the expiry of the first timeframe, video distributors buy the rights to the next window and distribute the film to the DVD/Blu-ray industry and VoD platforms. If the movie has the potential to be globally successful, the producer might involve international licence dealers to distribute to foreign markets.



Source: Warburg Research

The number of intermediaries, such as distributors and marketing/sales people, can vary widely. Major players, like Warner Bros., have a very high level of vertical integration and control large parts of the distribution chain, frequently carrying out the functions of the producer, film distributor, video distributor, international licence dealer and rights exploiter. For smaller-scale film productions, there can be many different sub-distributors along the value chain in the various distribution channels.

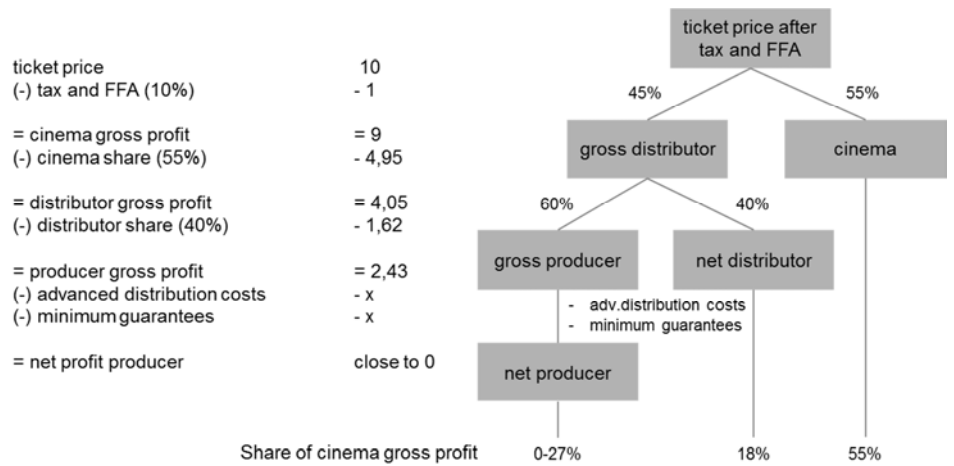
Financing

The financial participation of the parties involved in the earnings of a film depends strongly on its funding structure and contractual agreements. Depending on the intended purpose of a film (for cinema or TV), several sources of funding are available. These broadly divide into three categories, subsidies from public institutions, funding by TV channels usually in combination with exclusive broadcasting rights, or private funding with minimum guarantees, mainly by distribution companies. These guarantees are paid by the distributor in advance to facilitate the production of the film and after deduction of the distribution costs, the guarantees are first to be repaid from the film's profits.

Distribution of profits

The distribution of profits is based on contracts signed by the parties involved. The rental contract between the distributor and the cinema is usually designed with a rental fee for the distributor as a percentage of ticket revenues. The contract between the distributor and the producer includes the percentage distribution between those two parties. If we assume an allocation of 60/40 for the producer and the distributor, the producer earns 27% of the ticket price after tax and FFA. The distributor earns 18% and the cinema operator keeps 55%. These numbers are only rough estimates of the proceeds distribution and vary according to the negotiating power of the parties.

Distribution of cinema profits



Source: Warburg Research

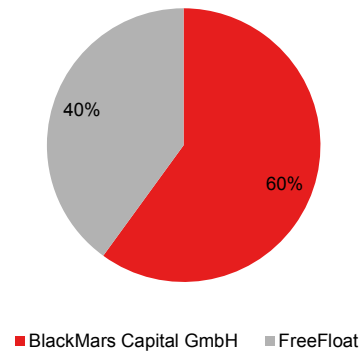
Crucial for the producer is the deduction of the advanced distribution costs and the repayment of minimum guarantees from the producer's gross proceeds. Depending on the success of a film and contractual agreements with possible caps on these positions, the producer comes out with nothing other than his fees and does not take a share of the profits.

The producer's share further down the value chain depends on the chosen channel. The contracts with SVoD services foresee a fixed fee for the producer/distributor, enabling these services to exploit the content for a predetermined period of time, regardless of exclusivity. For TVoD services, cash flows are attributable to individual content and usually mean producers/distributors earn a percentage of the revenues. Depending on the content, participation rates of 50-65% can be assumed to be normal.

Shareholder structure

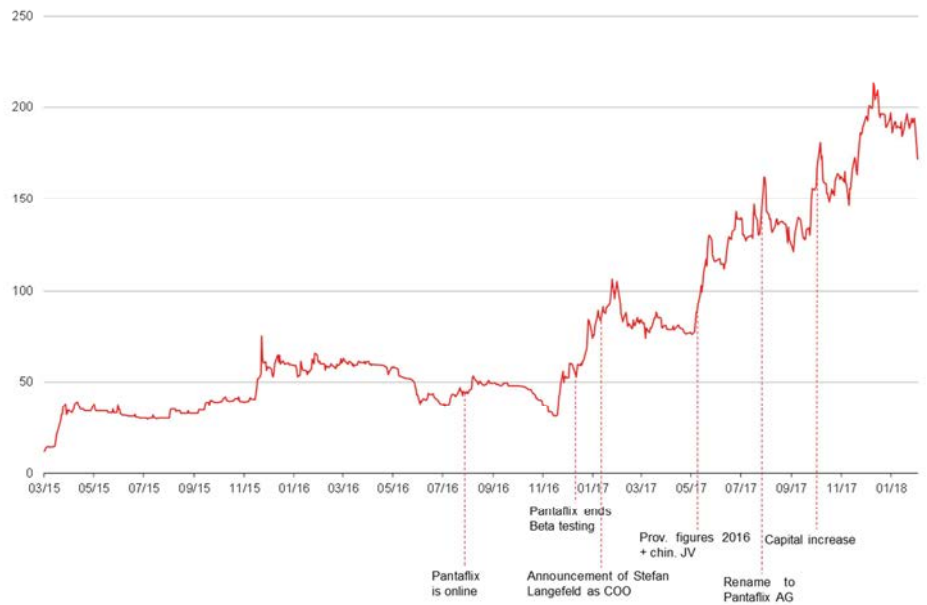
The shareholder structure of Pantaflix is dominated by a 60% majority shareholder BlackMars Capital GmbH, an investment vehicle owned by the CEO Dan Maag, Matthias Schweighöfer and Marco Beckmann. The freefloat of 40% includes large institutional investors such as Allianz Global Investors (9%) or Frankfurt Performance Management AG (4%).

Shareholder structure



Source: Warburg Research

Share price development



Source: Warburg Research

DCF model

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	
Sales	33.9	43.4	55.1	65.0	76.0	86.8	95.0	101.7	108.9	116.5	124.6	132.1	138.7	
Sales change	124.8 %	27.8 %	26.9 %	18.1 %	16.9 %	14.3 %	9.4 %	7.0 %	7.1 %	7.0 %	7.0 %	6.0 %	5.0 %	3.0 %
EBIT	-1.0	0.7	4.7	11.5	18.5	26.2	31.6	35.8	39.1	43.1	48.0	54.2	59.0	
EBIT-margin	-3.0 %	1.6 %	8.6 %	17.7 %	24.3 %	30.2 %	33.2 %	35.2 %	36.0 %	37.0 %	38.5 %	41.0 %	42.5 %	
Tax rate (EBT)	0.0 %	0.0 %	10.2 %	25.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	
NOPAT	-1.0	0.7	4.2	8.6	12.9	18.4	22.1	25.0	27.4	30.2	33.6	37.9	41.3	
Depreciation	22.8	26.1	30.0	32.5	38.0	43.4	47.5	45.7	49.0	46.6	49.9	52.8	55.5	
in % of Sales	67.1 %	60.1 %	54.5 %	50.0 %	50.0 %	50.0 %	50.0 %	45.0 %	45.0 %	40.0 %	40.0 %	40.0 %	40.0 %	
Changes in provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	-2.1	0.5	0.8	2.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	
- Capex	26.9	30.6	34.9	39.0	45.6	47.8	52.2	50.8	49.0	46.6	49.9	52.8	55.5	
Capex in % of Sales	79.3 %	70.5 %	63.4 %	60.0 %	60.0 %	55.0 %	55.0 %	50.0 %	45.0 %	40.0 %	40.0 %	40.0 %	40.0 %	
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Free Cash Flow (WACC Model)	-3.1	-4.4	-1.5	0.0	5.5	14.2	17.5	20.1	27.5	30.3	33.8	38.1	41.4	44
PV of FCF	-3.1	-4.0	-1.3	0.0	3.9	9.0	10.1	10.6	13.3	13.3	13.5	13.9	13.8	219
share of PVs	-2.69 %			32.45 %										70.25 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	5.00 %	Financial Strength	1.40
Cost of debt (after tax)	2.1 %	Liquidity (share)	1.60
Market return	7.00 %	Cyclicality	1.70
Risk free rate	1.50 %	Transparency	1.60
		Others	1.50
WACC	9.68 %	Beta	1.56

Valuation (m)

Present values 2029e	93		
Terminal Value	219		
Financial liabilities	6		
Pension liabilities	0		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	12	No. of shares (m)	1.3
Equity Value	318	Value per share (EUR)	250.41

Sensitivity Value per Share (EUR)

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		2.25 %	2.50 %	2.75 %	3.00 %	3.25 %	3.50 %	3.75 %			-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.75	10.7 %	194.65	198.40	202.39	206.64	211.17	216.03	221.23	1.75	10.7 %	196.70	200.01	203.32	206.64	209.95	213.27	216.58
1.66	10.2 %	212.50	216.99	221.78	226.90	232.39	238.29	244.65	1.66	10.2 %	216.22	219.78	223.34	226.90	230.46	234.01	237.57
1.61	9.9 %	222.38	227.30	232.56	238.20	244.27	250.80	257.86	1.61	9.9 %	227.12	230.82	234.51	238.20	241.90	245.59	249.28
1.56	9.7 %	232.98	238.39	244.18	250.41	257.13	264.38	272.25	1.56	9.7 %	238.90	242.74	246.57	250.41	254.25	258.09	261.93
1.51	9.4 %	244.38	250.33	256.73	263.63	271.09	279.17	287.97	1.51	9.4 %	251.64	255.64	259.64	263.63	267.63	271.62	275.62
1.46	9.2 %	256.66	263.24	270.32	277.99	286.30	295.33	305.21	1.46	9.2 %	265.49	269.65	273.82	277.99	282.15	286.32	290.49
1.37	8.7 %	284.29	292.38	301.16	310.70	321.13	332.56	345.16	1.37	8.7 %	297.05	301.60	306.15	310.70	315.26	319.81	324.36

- High EBIT margin resulting of platform business with a low cost basis in steady state
- High depreciation rates result from typical accounting practices in content production business

Valuation							
	2013	2014	2015	2016	2017e	2018e	2019e
Price / Book	n.a.	n.a.	8.6 x	18.4 x	11.7 x	11.1 x	9.2 x
Book value per share ex intangibles	0.00	-0.86	3.38	-4.00	6.34	3.58	3.25
EV / Sales	n.a.	n.a.	2.9 x	4.0 x	6.5 x	5.2 x	4.1 x
EV / EBITDA	n.a.	n.a.	4.4 x	6.6 x	10.2 x	8.5 x	6.6 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	n.a.	326.7 x	48.3 x
EV / EBIT adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	326.7 x	48.3 x
P / FCF	n.a.	n.a.	136.8 x	n.a.	n.a.	n.a.	n.a.
P / E	n.a.	n.a.	n.a.	n.a.	n.a.	256.4 x	51.6 x
P / E adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	256.4 x	51.6 x
Dividend Yield	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCF Potential Yield (on market EV)	n.a.	n.a.	22.7 %	15.0 %	9.8 %	11.8 %	15.0 %

*Adjustments made for: -

Company Specific Items							
	2013	2014	2015	2016	2017e	2018e	2019e
VoD Active Customer development	n.a.	n.a.	n.a.	n.a.	0.3	1.2	2.4

Consolidated profit & loss

In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Sales	7.2	6.0	13.7	15.1	33.9	43.4	55.1
Change Sales yoy	n.a.	-16.6 %	127.7 %	10.4 %	124.8 %	27.8 %	26.9 %
Increase / decrease in inventory	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Own work capitalised	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Total Sales	7.2	6.0	13.7	15.5	33.9	43.4	55.1
Material expenses	5.7	7.0	9.2	3.6	4.9	5.0	5.5
Gross profit	1.5	-1.0	4.5	11.9	29.0	38.3	49.5
<i>Gross profit margin</i>	<i>21.4 %</i>	<i>-16.0 %</i>	<i>32.5 %</i>	<i>78.8 %</i>	<i>85.4 %</i>	<i>88.4 %</i>	<i>90.0 %</i>
Personnel expenses	0.5	0.5	0.8	2.0	4.7	5.6	7.1
Other operating income	2.6	1.9	6.6	0.9	2.3	2.2	2.1
Other operating expenses	0.5	0.8	1.5	1.7	4.9	8.2	9.8
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	3.1	-0.3	8.8	9.1	21.8	26.8	34.7
<i>Margin</i>	<i>42.7 %</i>	<i>-5.5 %</i>	<i>64.4 %</i>	<i>60.4 %</i>	<i>64.1 %</i>	<i>61.7 %</i>	<i>63.0 %</i>
Depreciation of fixed assets	0.1	0.0	0.1	0.0	0.0	0.0	0.0
EBITA	2.9	-0.3	8.8	9.1	21.8	26.8	34.7
Amortisation of intangible assets	0.0	0.0	9.3	10.9	22.8	26.1	30.0
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	2.9	-0.3	-0.6	-1.8	-1.0	0.7	4.7
<i>Margin</i>	<i>40.7 %</i>	<i>-5.8 %</i>	<i>-4.3 %</i>	<i>-11.7 %</i>	<i>-3.0 %</i>	<i>1.6 %</i>	<i>8.6 %</i>
EBIT adj.	2.9	-0.3	-0.6	-1.8	-1.0	0.7	4.7
Interest income	0.0	0.1	0.1	0.1	0.1	0.2	0.2
Interest expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other financial income (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	2.9	-0.2	-0.5	-1.7	-0.9	0.9	4.9
<i>Margin</i>	<i>40.4 %</i>	<i>-4.1 %</i>	<i>-3.5 %</i>	<i>-11.0 %</i>	<i>-2.7 %</i>	<i>2.1 %</i>	<i>8.9 %</i>
Total taxes	0.2	0.1	-0.1	0.1	0.0	0.0	0.5
Net income from continuing operations	2.8	-0.4	-0.4	-1.7	-0.9	0.9	4.4
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income before minorities	2.8	-0.4	-0.4	-1.7	-0.9	0.9	4.4
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	2.8	-0.4	-0.4	-1.7	-0.9	0.9	4.4
<i>Margin</i>	<i>38.3 %</i>	<i>-6.5 %</i>	<i>-3.2 %</i>	<i>-11.2 %</i>	<i>-2.7 %</i>	<i>2.1 %</i>	<i>8.0 %</i>
Number of shares, average	1.0	1.0	1.1	1.1	1.3	1.3	1.3
EPS	2.76	-0.39	-0.39	-1.54	-0.72	0.70	3.48
EPS adj.	2.76	-0.39	-0.39	-1.54	-0.72	0.70	3.48

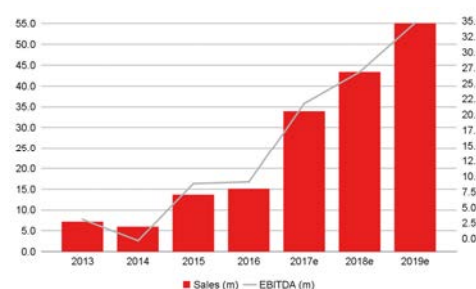
*Adjustments made for:

Guidance: Sharp rise in sales and significant increase in income
Financial Ratios

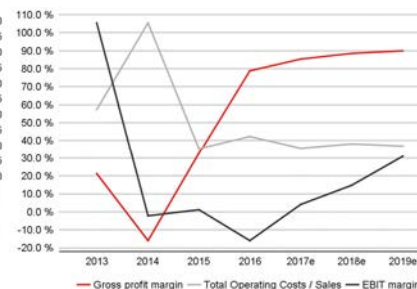
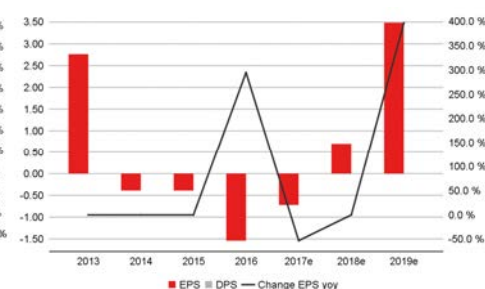
	2013	2014	2015	2016	2017e	2018e	2019e
Total Operating Costs / Sales	57.3 %	105.5 %	35.6 %	42.3 %	35.9 %	38.3 %	37.0 %
Operating Leverage	n.a.	n.a.	0.6 x	19.2 x	-0.3 x	n.a.	21.6 x
EBITDA / Interest expenses	118.2 x	n.m.	491.9 x	3178.7 x	n.a.	n.a.	n.a.
Tax rate (EBT)	5.4 %	-58.3 %	10.7 %	-3.5 %	0.0 %	0.0 %	10.2 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	n.a.	30,045	414,545	165,934	291,359	342,897	403,307

Sales, EBITDA

in EUR m


Operating Performance

in %


Performance per Share


Source: Warburg Research

Source: Warburg Research

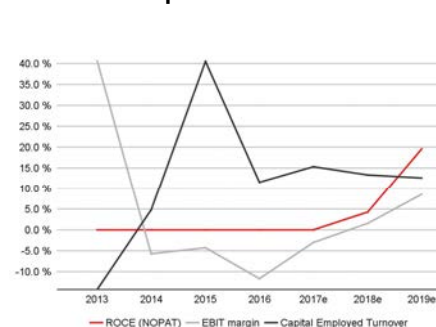
Source: Warburg Research

Consolidated balance sheet

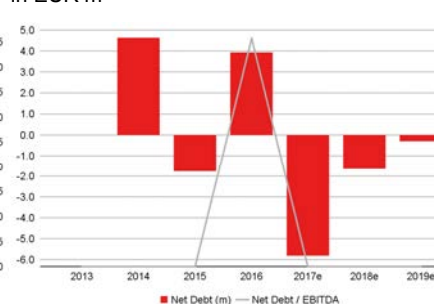
In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Assets							
Goodwill and other intangible assets	0.0	0.0	1.0	7.5	11.5	15.9	20.7
thereof other intangible assets	0.0	0.0	1.0	7.5	11.5	15.9	20.7
thereof Goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property, plant and equipment	0.0	0.0	0.0	0.1	0.2	0.3	0.4
Financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long-term assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fixed assets	0.0	0.0	1.1	7.6	11.7	16.3	21.2
Inventories	0.0	6.2	0.9	0.0	0.0	0.0	0.0
Accounts receivable	0.0	1.7	3.4	4.6	9.3	11.9	15.1
Liquid assets	0.0	5.9	4.8	1.8	11.9	7.8	6.4
Other short-term assets	0.0	4.4	3.3	4.0	7.4	7.4	7.4
Current assets	0.0	18.1	12.4	10.5	28.6	27.0	28.9
Total Assets	0.0	18.1	13.5	18.1	40.3	43.3	50.1
Liabilities and shareholders' equity							
Subscribed capital	0.0	1.0	1.1	1.1	1.3	1.3	1.3
Capital reserve	0.0	0.0	5.9	5.9	23.1	23.1	23.1
Retained earnings	0.0	-1.9	-2.2	-3.9	-4.8	-3.9	0.5
Other equity components	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shareholders' equity	0.0	-0.9	4.8	3.1	19.6	20.5	24.9
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	0.0	-0.9	4.8	3.1	19.6	20.5	24.9
Provisions	0.0	0.2	0.1	0.2	0.2	0.2	0.2
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	0.0	10.5	3.0	5.8	6.1	6.1	6.1
thereof short-term financial liabilities	0.0	10.5	3.0	5.8	6.1	6.1	6.1
Accounts payable	0.0	0.3	0.2	0.8	0.9	1.2	1.5
Other liabilities	0.0	8.0	5.4	8.2	13.6	15.3	17.4
Liabilities	0.0	19.0	8.7	15.0	20.7	22.8	25.2
Total liabilities and shareholders' equity	0.0	18.1	13.5	18.1	40.3	43.3	50.1

Financial Ratios

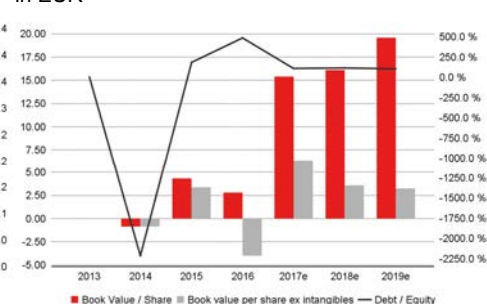
	2013	2014	2015	2016	2017e	2018e	2019e
Efficiency of Capital Employment							
Operating Assets Turnover	n.a.	2.9 x	-15.1 x	-5.8 x	-7.4 x	-11.1 x	-18.5 x
Capital Employed Turnover	n.a.	1.6 x	4.6 x	2.2 x	2.5 x	2.3 x	2.2 x
ROA	n.a.	-1291.9 %	-40.1 %	-22.3 %	-7.8 %	5.5 %	20.8 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	n.a.	4.3 %	19.5 %
ROE	n.a.	90.6 %	-22.2 %	-43.3 %	-8.1 %	4.5 %	19.5 %
Adj. ROE	n.a.	90.6 %	-22.2 %	-43.3 %	-8.1 %	4.5 %	19.5 %
Balance sheet quality							
Net Debt	0.0	4.6	-1.8	3.9	-5.8	-1.7	-0.3
Net Financial Debt	0.0	4.6	-1.8	3.9	-5.8	-1.7	-0.3
Net Gearing	n.a.	-540.0 %	-37.1 %	127.8 %	-29.7 %	-8.1 %	-1.2 %
Net Fin. Debt / EBITDA	n.a.	n.a.	n.a.	43.1 %	n.a.	n.a.	n.a.
Book Value / Share	0.0	-0.9	4.3	2.8	15.4	16.1	19.6
Book value per share ex intangibles	0.0	-0.9	3.4	-4.0	6.3	3.6	3.3

ROCE Development


Source: Warburg Research

Net debt in EUR m


Source: Warburg Research

Book Value per Share in EUR


Source: Warburg Research

Consolidated cash flow statement

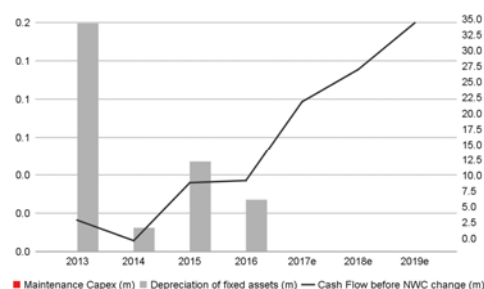
In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Net income	2.8	-0.4	-0.4	-1.7	-0.9	0.9	4.4
Depreciation of fixed assets	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.0	0.0	9.3	10.9	22.8	26.1	30.0
Increase/decrease in long-term provisions	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Other non-cash income and expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash Flow before NWC change	2.9	-0.4	8.8	9.2	21.9	27.0	34.4
Increase / decrease in inventory	0.0	-3.8	4.6	-1.1	0.0	0.0	0.0
Increase / decrease in accounts receivable	0.0	-0.2	0.0	0.0	-4.7	-2.6	-3.2
Increase / decrease in accounts payable	0.0	0.0	-2.6	3.5	6.7	2.1	2.4
Increase / decrease in other working capital positions	0.0	-4.4	-0.1	0.0	0.0	0.0	0.0
Increase / decrease in working capital (total)	0.0	-8.5	1.9	2.3	2.1	-0.5	-0.8
Net cash provided by operating activities [1]	2.9	-8.8	10.7	11.6	23.9	26.4	33.6
Investments in intangible assets	0.0	0.0	-10.4	-17.3	-26.8	-30.5	-34.8
Investments in property, plant and equipment	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Payments for acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial investments	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0
Income from asset disposals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash provided by investing activities [2]	0.0	0.0	-10.3	-17.3	-26.9	-30.6	-34.9
Change in financial liabilities	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	0.0	6.0	0.0	18.5	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash provided by financing activities [3]	0.0	0.0	6.0	0.0	18.8	0.0	0.0
Change in liquid funds [1]+[2]+[3]	2.9	-8.8	6.4	-5.7	15.8	-4.2	-1.4
Effects of exchange-rate changes on cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash and cash equivalent at end of period	2.9	-4.6	1.8	-3.9	11.9	7.8	6.4

Financial Ratios

	2013	2014	2015	2016	2017e	2018e	2019e
Cash Flow							
FCF	2.9	-8.8	0.3	-5.8	-3.0	-4.2	-1.4
Free Cash Flow / Sales	40.3 %	-146.9 %	2.2 %	-38.6 %	-8.8 %	-9.6 %	-2.5 %
Free Cash Flow Potential	2.9	-0.5	8.9	9.1	21.8	26.8	34.2
Free Cash Flow / Net Profit	105.4 %	2270.9 %	-68.8 %	343.6 %	327.3 %	-465.1 %	-30.6 %
Interest Received / Avg. Cash	n.a.	3.9 %	2.3 %	3.2 %	1.5 %	2.0 %	2.8 %
Interest Paid / Avg. Debt	n.a.	0.3 %	0.3 %	0.1 %	0.0 %	0.0 %	0.0 %
Management of Funds							
Investment ratio	0.0 %	0.0 %	76.0 %	115.3 %	79.3 %	70.5 %	63.4 %
Maint. Capex / Sales	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Capex / Dep	0.0 %	0.0 %	110.6 %	159.8 %	118.2 %	117.3 %	116.5 %
Avg. Working Capital / Sales	n.a.	16.9 %	4.0 %	-12.2 %	-11.1 %	-10.4 %	-7.0 %
Trade Debtors / Trade Creditors	n.a.	552.4 %	1455.4 %	545.4 %	1033.3 %	991.7 %	1006.7 %
Inventory Turnover	n.a.	1.1 x	10.2 x	n.a.	n.a.	n.a.	n.a.
Receivables collection period (days)	0	101	90	112	100	100	100
Payables payment period (days)	0	16	9	85	66	87	99
Cash conversion cycle (Days)	n.a.	108	-162	n.a.	n.a.	n.a.	n.a.

CAPEX and Cash Flow

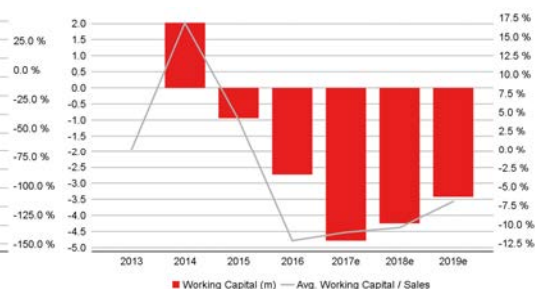
in EUR m



Free Cash Flow Generation



Working Capital



Source: Warburg Research

Source: Warburg Research

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Investment recommendation: expected direction of the share price development of the financial instrument up to the given price target in the opinion of the analyst who covers this financial instrument.

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“-“	Rating suspended:	The available information currently does not permit an evaluation of the company.

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Rating	Number of stocks	% of Universe
Buy	109	53
Hold	88	43
Sell	8	4
Rating suspended	0	0
Total	205	100

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING ...

... taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	32	76
Hold	9	21
Sell	1	2
Rating suspended	0	0
Total	42	100

PRICE AND RATING HISTORY PANTAFLIX AS OF 06.02.2018


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