THE VINYL REVIVAL: ARE VINYL RECORDS POISED TO ONCE MORE ROCK THE MUSIC INDUSTRY?

by

Alexander Golin

Term Paper Revision

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Tufts University
Medford, Massachusetts

EXECUTIVE SUMMARY

I wrote this paper during the spring semester of 2015 as the term paper for Engineering Management 52, Technical and Managerial Communication. Amy Hirschfeld teaches this class at Tufts University in Medford, Massachusetts.

The purpose of this paper is to introduce the reader to the culture of vinyl records and the fact that it has become trendy to collect them, despite the presence of more convenient music formats. I aim to provide the readers with an evaluation of the reasons people find value in purchasing vinyl so that they may decide whether they would like to start their own collection.

In this paper, I address several key topics: (1) the history of the rise, fall, and revival of vinyl records in the music industry; (2) the myriad reasons people have returned to purchasing vinyl, including psychological, social, and aural reasons; (3) the limitations of vinyl production in the modern industry and the ramifications of these limitations on future growth of the format; and (4) the differing proposals about how the vinyl industry may change in the next decade.

Vinyl was once the dominant format of the music industry, but since the late 1980s, vinyl sales have been virtually nonexistent until 2008, when sales began to increase at an unprecedented rate. Early versions of vinyl records first gained popularity just before the turn of the 20th Century and remained the dominant format until the late 1980s. When the CD was introduced as a more compact and convenient alternative to vinyl records, vinyl sales dropped dramatically and CDs dominated the market. In the new millennium, digital downloads and streaming services have become very popular and have threatened even the dominance of CDs. Yet, despite the presence of these convenient formats, a dramatic increase in vinyl sales began in 2008 and has continued each year since, leaving many to question why such a phenomenon is occurring.

I have identified four major reasons why people have been buying vinyl again: (1) vinyl pressers are creating a more boutique market by making an unprecedented quantity and variety of custom and limited edition vinyl records; (2) Record Store Day has increased public awareness of the unique social culture of buying music in a record shop, which many people deeply miss in the modern age; (3) many people value the ritual of playing a record more than the unfulfilling and simplistic act of clicking a play button on a screen; and (4) some people believe that vinyl produces better audio quality, and though this belief is technically untrue, some people simply prefer the warm and scratchy sound of a vinyl record.

With the surging demand for vinyl records, the vinyl pressing industry has found itself under more strain than it can properly handle. Due to a shortage of vinyl presses and personnel who know how to properly operate them, the pressing industry is constantly behind schedule. Even more important, the vinyl production process is more an art than a science, and it is inconsistent and prone to error, which causes further backup.

The future of the vinyl industry is unclear. The format may continue to gain popularity if production can keep up, but if we have reached the ceiling of production, then the industry may stagnate. Regardless, whether you should start collecting vinyl is a very personal question, which can only be answered by examining whether you value what vinyl has to offer as a format.

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LIST OF DEFINITIONS

Download Card A small card that is frequently inserted into the sleeve of a record.

It contains a code that can be redeemed online in order to download a free digital copy of the purchased vinyl album.

FLAC A type of lossless audio encoding. FLAC stands for free lossless

audio codec.

Gramophone

Lossless Compression A type of data compression that allows complete access to the

original data, without any loss of data. Lossless audio is therefore

more accurate and not based on an approximation algorithm.

LP A "long play" vinyl record. It is the industry standard for full

album vinyl records. In modern times, LP has come to refer any full-length album released by an artist, as opposed to an EP, which is an "extended play" record. An EP contains more songs than a

single, but fewer songs than an LP.

Phonograph

Preamplifier Any device that prepares a signal to be processed and amplified

after passing through the preamp. Different preamplifiers have different capabilities and come in various levels of power. They can increase gain, change tone, change impedance, or balance signals, all of which can improve the sound quality after

amplification.

Sampling Rate The representation of a continuous audio signal as discrete signals.

In audio, sampling rate refers to the digital approximation of an analog sound wave. The higher the sampling rate, the better the digital approximation, and the better the resulting audio quality.

Spotify A very popular music streaming service. It can be used for free, but

advertisements will appear periodically on screen or through

headphones. Alternatively, you can become a premium member for

ten dollars a month and eliminate the presence of all ads.

Vinyl Press The machine on which vinyl records are made. The records are

poured and hardened before grooves are etched onto their surfaces.

Vinyl Pressers The individuals responsible for crafting vinyl records.

WAV

An audio file format that stores lossless audio. WAV is short for WAVeform audio format.

LIST OF ABBREVIATIONS AND INITIALISMS

CD Compact Disc

FLAC Free Lossless Audio Codec

LP Long Play

WAV Waveform Audio File Format

1.0 INTRODUCTION

1.1 Purpose

The purpose of this paper is to provide the reader with an evaluation of the current popularity of vinyl records and the reasons people have returned to collecting physical versions of albums instead of buying music digitally. After reading this paper, the reader will understand how vinyl compares to other formats in the modern music industry, and will be informed enough to decide whether he would like to start a vinyl collection of his own.

1.2 Scope

I begin the paper with a brief introduction to vinyl records and how they work. In the second section of this paper, I discuss the invention and history of vinyl records through the 20th Century. I highlight the dominance of vinyl until its rapid decline due to the invention the CD. I then discuss the rapid rise in vinyl sales that began in 2008. In the third section, I explore the myriad reasons that people are once more flocking to record stores, including industry gimmicks, increased social interaction while perusing and purchasing music, a psychological fascination with collecting physical items, and an alleged improvement in sound quality. In the fourth section, I note the obstacles facing vinyl sales and the ways vinyl pressers (the individuals responsible for fabricating the records) hope to deal with these obstacles. I conclude the paper with a broader look at the modern music industry and an evaluation of how vinyl may continue to play an important role as a competing format depending on how the general public, including the readers of this paper, decide to listen to their music.

1.3 Introduction to Vinyl Records

Vinyl records are composed of polyvinyl chloride, a chemical compound that is a versatile and durable plastic, which is shaped into discs and imprinted with grooves. The grooves of vinyl records are formed through the translation of electrical impulses to an etching device, and these grooves are reverse translated by the needles of record players. Vinyl records are played on turntables, which are modern-day adaptations of the original gramophones (rudimentary, mechanical versions of modern turntables) present before the turn of the 19th Century. Modern turntables come in many designs and degrees of technological power. Some turntables can be purchased as stand-alone audio centers, which can read the grooves of the record, process the sounds, and also emit the sounds through speakers. Some minimalistic turntables, on the other hand, merely read the grooves of a record and require an external apparatus to emit sound.

2.0 THE RISE, FALL, AND REVIVAL OF VINYL RECORDS

2.1 The Rise of Vinyl Records

In the late 1800s, Emile Berliner created the direct precursor to modern turntables and vinyl records: the gramophone. Berliner's gramophone played etched disks and ultimately became the foundation for modern-day vinyl records, though he used less technically advanced materials for his disks and players than we use today. The dominant method of listening to music closely followed Berliner's gramophone model through most of the 20th Century. A grooved disk would be placed on a rotating table and a needle would read the grooves and translate them into amplified vibrations. As technology improved, the amplified vibrations were replaced with electrical impulses and the materials used for the disks and needles became more advanced. Despite the constant technological updates that vinyl records and turntables underwent throughout the 20th Century, they could not compete with digital media in the form of CDs. (Osborne 2014)¹

2.2 The Fall of Vinyl Records

In the late 1980s, the music industry experienced a dramatic decline in vinyl record sales that coincided with the invention and popularization of CDs (Figure 1). Vinyl records were still being pressed, but CDs dominated the market. The public viewed CDs as an infallible format, and it was difficult for vinyl to compete. CDs were marketed as perfect, permanent, and compact, all of which vinyl records were not. Vinyl could be worn down through use, and it took up a large amount of space compared to CDs. Most of all, vinyl was imperfect and had static, dust, and scratches. CD sales were remarkably high in the 1990s and still make up a sizeable percentage of all music sales today. (Hogan 2014)

¹ Complete List of References follows the body of this essay.

2.3 The Revival of Vinyl Records

When digital downloads, digital streaming, and pirating became popular, the death of the CD seemed to be rapidly approaching, so the fact that vinyl records experienced drastically increased sales starting in 2008 came as a shock. Vinyl sales in 2008 almost doubled from the previous year, and since then, sales have continued to climb at impressive rates. In 2013, 6.1 million vinyl albums were sold, which marked a six-fold increase from the 1 million vinyl albums sold in 2007 (Oliphint 2014). These numbers are impressive, but in actuality, vinyl sales still only constitute about two percent of the total industry sales (Figures 2 and 3). Even if the percentage of sales is small, the music industry cannot disregard the statistically significant increases in sales, and therefore we must examine why people are once more purchasing vinyl (Shah 2014).

3.0 REASONS PEOPLE ARE BUYING VINYL RECORDS

3.1 The Individualism of Gimmicks and Special Offers

Vinyl pressers are churning out an unprecedented variety and quantity of specialized records, unlike the industry has ever experienced. The presentation and packaging of records has dramatically changed since the heyday of vinyl. Vinyl pressers used to be able to churn out hundreds of standard, black, polyvinyl chloride records, one after the next, and quickly slide them into their uniform sleeves. Of course, there were always some promotional or artistic gimmicks for some of the most prominent bands and albums. The difference in the modern vinyl industry is that every band, regardless of their popularity, seems to want to print their album in wide arrays of colors, and demands that eye-catching inserts like stickers and download cards be placed in every record sleeve (Khanna 2014). Some artists are even asking for records that include glitter, coffee grounds, ashes of a bible, and even their own blood, but vinyl pressers generally refuse the requests for blood (Oliphint 2014).

The increase in promotional gimmicks is changing the landscape of vinyl retail, and the success of such gimmicks suggests something very important about public consumerism - the modern vinyl consumer is looking for more than just a way to listen to music. A vinyl consumer in the modern age is looking for an aesthetic, physical testament to his or her unique brand of fandom, and artists are trying to capitalize on this desire by offering limited-time promotional deals and diverse prints of their albums (Khanna 2014). The success of these unique, limited-time offers may suggest that people have a psychological fascination with individualism. However, at the same time, people are finding a great deal of value in the sense of community fostered by record purchasing and record stores.

3.2 The Advent of Record Store Day and the Social Culture of Collecting

When digital downloads became the norm, the social culture of purchasing music completely changed, and people have made impressive efforts to reestablish the social culture of vinyl stores. People are now able to buy any song in the world without ever having to leave their home, which means that they might be missing out on meaningful conversations with fellow record store patrons and employees. In an attempt to reclaim the social culture of buying music, a conglomeration of independent storeowners and employees founded Record Store Day in 2007 and held the first one in April of 2008. Record Store Day is an international campaign that seeks to bring attention to the still flourishing culture of independent record stores around the world. For one day every year, the music industry focuses its attention on vinyl records and the stores that specialize in selling them. Stores hold performances and offer special deals, and artists release limited-edition records to help garner media and consumer attention. (Record Store Day 2015)

Record Store Day has been very successful, though the success is not due solely to the intense media coverage. In fact, between 2013 and 2014 there was a 50% increase in sales on Record Store Day alone (G.M. 2014). One could argue that the media presence of Record Store Day is enough to cause such heightened interest in vinyl however, René de Guzman, the curator of a vinyl exhibit at the Museum of California, attributes the surging interest in vinyl and the success of Record Store Day to something more: "There's a social aspect of listening to records. You share musical interests and let others know the reasons why certain things are meaningful to you and others. Listening to records puts music into the foreground because its physical nature requires intention and attention" (G.M. 2014). Record Store Day has been a successful tool in

rekindling the social culture of buying music, but it is, after all, only one day a year. Mr. Guzman is correct in noting the importance of the social culture and the forced attention of listening to analog records, and in fact, many aficionados treat their records in a highly attentive, almost ritualistic way.

3.3 The Ritual of Collecting and Putting Needle to Groove

Clicking around a screen can feel simplistic and unfulfilling compared to the robust and personal experience of playing a record. As noted by Mr. Guzman in the quotation in Section 3.2, playing a record requires a great deal of focus and attention, and is a process that can be enjoyed in and of itself. Vinyl records can be smelled, touched, and physically admired; they are more substantive and infinitely more tangible than the cluster of pixels on a screen displaying album art that is too small to appreciate.

The popularity of digital media has meant that people have no longer been forming a music collection that feels as definitive and personal as an analog collection. Despite the fact that iTunes allows people to amass a collection of files, and Spotify allows people to click a button and save an album to a digital library, the ease with which songs and albums can be added and deleted has undermined the value of the library. A vinyl record is a work of art, something that can be hung on your wall or proudly displayed on a shelf. Vinyl records provide people with a way of tangibly declaring their fandom, and they serve as trophies because they show that a person has made the effort to walk to the store and spend upwards of twenty dollars to purchase a product from a beloved artist. Just as collecting vinyl records and perusing a vinyl library are deeply swayed by ritual and familiarity, so too is the actual audio experience of listening to a vinyl record. (Oliphint 2014)

3.4 The Allegedly Superior Sound Quality of Vinyl Records

Many individuals, in addition to relishing the act of playing a vinyl record, are convinced that they sound significantly better than any digital format available. When mp3s first appeared, the sampling rate (the digital approximation of an analog sound wave) was low, and thus the sound quality was very poor. Sampling rates were kept low for the sake of convenience and saving space in computer storage, but the poor quality convinced people that all digital audio sounded cheap and grainy (Richardson 2013). This belief is simply untrue. Higher sampling rate mp3s are the standard now, and beyond mp3s, lossless files (compressed files that can be uncompressed without any loss of data) such as FLAC and WAV files are becoming increasingly popular. Some of the lossless files are so detailed that they actually surpass the level at which humans are able to perceive differences in sound quality. If digital files are so advanced that their flaws are imperceptible to the human ear, how can one possibly make the claim that vinyl sounds better? In actuality, vinyl does not produce inherently higher quality audio, in fact, vinyl audio is generally lower quality, but can actually sound more pleasing to an individual.

Hearing is a highly subjective experience, and no matter how much people use science to prove that digital audio can be considered perfect to the human ear, some individuals still insist that they prefer listening to vinyl because it simply sounds better to them. Most people cite the familiar and comforting static associated with playing a vinyl record. This static is, in fact, a blatant distortion of what was originally intended for the music. Another common praise of vinyl is the warmth of the sound. *Warmth* is a commonly used, vague, and poorly understood term. The alleged warmth is actually just the result of vinyl records being unable to precisely process the bass tones, which results in a distortion of the original sound. Aspects of vinyl such as static

and warmth make it of technically lower sound quality, but if someone likes the warmth and static, the vinyl recording will sound better to him or her than the digital one. (Richardson 2013)

4.0 OBSTACLES FACING THE VINYL REVIVAL

4.1 Limited Resources for Production

With the sudden surge in demand for vinyl records and the yearly spike in orders for Record Store Day, vinyl pressing plants are facing high demand that they are unprepared for, which has severely strained their operations. In fact, demand has become so high that artists are frequently left without any vinyl records to sell at their record release events. Artists that have always ordered vinyl are ordering more, and artists that have never expressed interest in vinyl are now submitting large orders of their own. To make matters more trying, as discussed in Section 3.1, an ever-increasing amount of specialized orders are adding complexity to the already hectic operations of pressing plants. (Khanna 2014)

Only about twenty fully functional pressing plants are still in operation in the United States. Many have gone out of business since the vinyl heyday, and since then, few others have opened. Most of the remaining vinyl presses have been bought and refurbished, and no one is manufacturing new presses, so some people speculate that the vinyl production industry may soon reach its ceiling. To add to difficulties facing pressing plants, vinyl presses are complex machines and require well-trained professionals to run them. Everyone who knows how to use a press is already operating one, and with business booming, pressers have no time to train new employees. Even more important is that vinyl production takes more than just a professional; it takes an artist. (Khanna 2014)

4.2 Artistic Nature of Production

Part of what makes vinyl pressing so difficult is that vinyl pressing, unlike CD manufacturing, is much more of an art than an easily reproducible science. Every aspect of a vinyl record is vital,

and every step of the process is prone to error. Whether it is the vinyl disk, the groove etchings, the paper label, or the sleeve, every aspect of the finished product involves a human touch. No matter how consistent machine settings might be, pressers can never be sure that the product will turn out the same each time. Even on the musician's end of the process, vinyl requires a great deal more understanding than other formats. Music must be properly edited for vinyl in a way that is distinctly different than for CDs, and musicians must understand that the pressing procedure is not as fast as duplicating a CD or uploading a digital file. Creating a vinyl record is a lengthy and personal procedure, and vinyl production is certainly slowed by the meticulousness of the process, however this attention to detail is part of what makes vinyl so special. Vinyl records are the finished product of artists that work in different mediums that add to and adapt one another's work, taking nothing and turning it into sound, and taking sound and turning it into grooves. (Oliphint 2014)

5.0 CONCLUSIONS

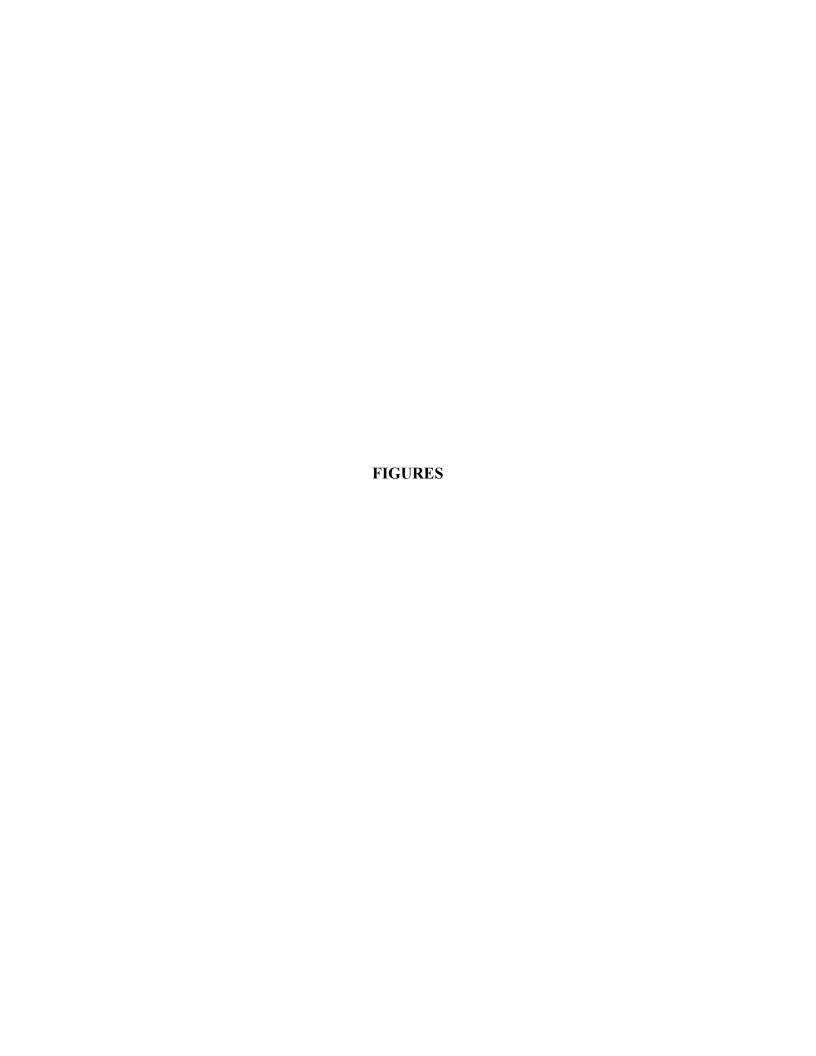
With the music industry very much in the throes of the vinyl revival, everyone is eagerly waiting to see how the vinyl industry continues to change. Some people propose that the format will just continue regaining popularity and eventually the pressing plants will catch up with demand by increasing employment or contracting new presses. Others suggest that we may soon reach the ceiling on vinyl production, and the revival will ultimately stagnate, which would leave vinyl to occupy a meager 2% of industry sales. Vinyl will likely never be able to replace the convenience of streaming services such as Spotify or Pandora, but perhaps people will start to develop a dualistic approach to building a music library. Perhaps people will begin digitally streaming for convenience in addition to collecting some of their favorite records on vinyl. A dualistic approach to listening to music would allow individuals to have the expansive connectivity of streaming services at their fingertips while still feeling tangibly tied to the artists they love most.

6.0 RECOMMENDATIONS

Whatever the future may hold for vinyl, clearly vinyl records are a remarkably tenacious music format that will likely never fully disappear. That said, vinyl will likely never again dominate the market as it once did. Is vinyl a better format than CDs, digital downloads, or streaming services? Ultimately, the question of which format is best is a very personal question that every individual must ask him or herself. After reading this paper, you should have a better idea of how vinyl records came to occupy their current position in the music industry, and you should understand why many people find value in starting or growing their vinyl collection. If you think you might like to start your own collection, go to a record store and see if they have a demo turntable. See how it feels to manually place the record on the turntable and place the needle in the groove. You might just fall in love like so many have before.

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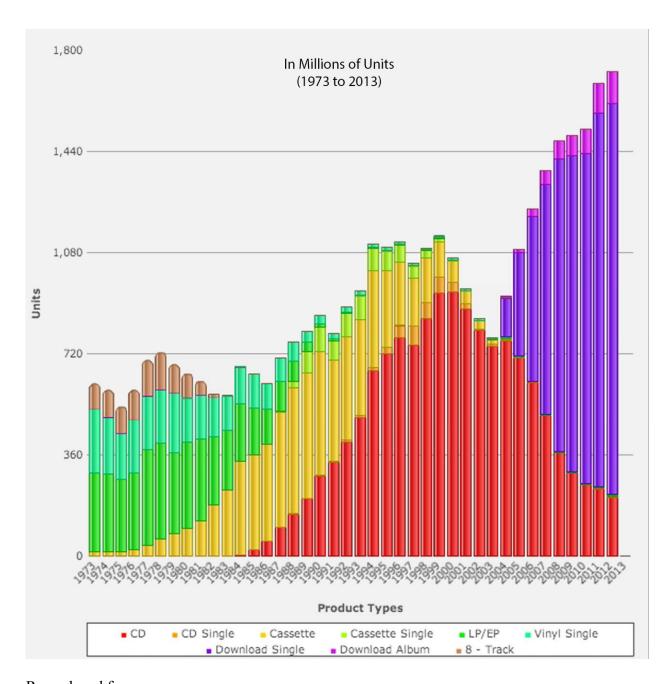
In Millions of Units 1,000 (1973 to 2013) 800 600 Units 400 200 **Product Types** CD LP/EP Vinyl Single

Figure 1. VINYL AND CD SALES SINCE 1973

Reproduced from:

Hogan, Marc. "Did Vinyl Really Die in the '90s? Well, Sort Of..." *Spin*, May 16, 2014. Accessed March 20, 2015. http://www.spin.com/articles/did-vinyl-really-die-in-the-90s-death-resurgence-sales/

Figure 2. ALL FORMAT SALES SINCE 1973 IN UNITS

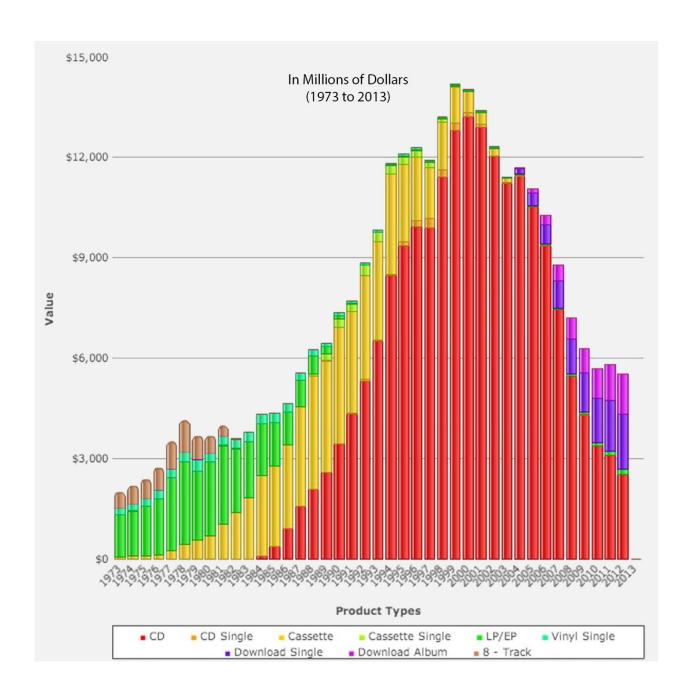


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Swensson, Andrea. "40 Years of Album Sales Data in Two Handy Charts." *The Current*, February 20, 2014. Accessed March 20, 2015. http://blog.thecurrent.org/2014/02/40-years-of-album-sales-data-in-one-handy-chart/

Figure 3. ALL FORMAT SALES SINCE 1973 IN DOLLARS

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