

Music 1533
Introduction to Figured Bass
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Figured bass is a technique developed in conjunction with the practice of *basso continuo* at the end of the Renaissance (around 1560 or so). In *basso continuo*, two performers helped to fill in the texture of a composition while one or more performers provided the melody. A single-line, bass instrument such as cello, bassoon or trombone would play the bass line. At the same time, a chordal instrument such as harpsichord, lute or organ would also play the bass line and provide middle range pitches that would fill in the harmonies implied by that bass line.

Initially, *basso continuo* players would look at just the bass line, with no additional information. The keyboard player's choice of notes was left up to good taste and his or her understanding of the musical language and context of the piece. As tonal music became more complex, it became common to provide more information by including *figures*, that is, numbers and musical symbols, below the bass line. This was also a sign of a shift in emphasis from counterpoint to chordal harmony. However, through most of the Baroque era, keyboard players were expected to be able to *realize* unfigured bass-lines just as well as those with figures. One estimate is that about seventy percent of the bass lines from the seventeenth and eighteenth centuries did *not* include figures.

The importance of figured bass, however, lies in its role in the shift from contrapuntal to harmonic thinking. The concept of a chord having a *root* was not developed until the very end of the seventeenth century, and not popularized until the mid-eighteenth century. But any musician can see that a group of pitches has a lowest note, or *bass* note. If a musician plays enough bass lines, it isn't very long before patterns within a style start to arise. Figured-bass theory was the first comprehensive theory of tonal harmony, and as such, it has made important contributions to our thinking today.

Figured bass was always primarily a pedagogical tool. As young musicians learned to play from bass lines, they would be given exercises known as *partimenti* that would incorporate stock bass motions in typical combinations. Some composers began including figured bass lines in their published music, particularly if it was complex and highly chromatic. Eventually, the emphasis in Western music shifted to fully-notated music, but figured bass remained important in music pedagogy, because it allowed music theory students to focus on writing good voice-leading without having to decide which chord came next.

Your textbook includes exercises in figured bass, as have most college theory textbooks since 1900. The sheer amount of material to be covered in four semesters, however, leads an undergraduate professor to question whether an emphasis on figured bass is appropriate: today, only musicians with a deep specialization in "early music" use figured bass on a regular basis in their professional lives. The time devoted to figured bass may be better spent investigating popular music of the last century, for instance. However, it would be remiss not to at least offer a summary of the technique, as an understanding of it is often required in graduate-level coursework.

How Figured Bass Works

To a keyboard player of the seventeenth century, the bass note was the most important note of the chord. Figured bass notation is a shorthand system telling which notes are to be placed above that

bass note at any time. Because it is shorthand, it doesn't give all the information, and some things are left up to the performer. There is usually more than one correct realization of a figured bass line.

We begin with several assumptions:

- A pitch is equivalent with its counterparts in higher octaves. That is, if we need a C, it doesn't matter if it is C3, C4 or C5, as long as it is placed above the bass note.
- Unless told otherwise, we stay within the key signature.
- Numbers written beneath occasionally above a bass note represent generic intervals to be played above that note. Other symbols may accompany these numbers to give additional information.
- In general, we will realize three notes above every bass note. This is an assumption for this class only. The actual number of notes above the bass in performance will depend on the whim of the keyboardist.

Now the rules:

- Given a bass note with no figures, it is assumed that the third and fifth within the key are played above it, along with their octave transpositions.

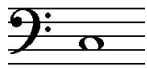


Notice that *any* C, E or G above the bass note will work, not necessarily the closest ones, and not necessarily in stacks of thirds.

- A "7" written below a bass note adds a seventh above the bass to the chord without affecting other notes.



- A "6" written below the bass note changes the fifth to a sixth above the bass and leaves the third alone, creating a first inversion triad.



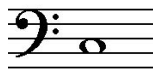
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- If both a sixth and a fifth are desired, both numbers must appear. The third remains, creating a first inversion seventh chord.



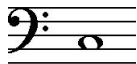
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- A “4” written below the bass note changes the third to a fourth above the bass. This is usually seen in conjunction with a “6”, creating a second inversion triad.



6
4

- If both a fourth and a third are desired, both numbers must appear. This is usually seen, again, with a “6”, creating a second inversion seventh chord.



6
4
3

- A “2” written below the bass note adds a second above the bass to the chord without affecting other notes. This is often seen with a “4” and a “6” to create a third inversion seventh chord.



The most frequent figures are nothing, to indicate a root position triad, and a “6” to indicate a first inversion triad.

Other symbols are frequently encountered help to deal with accidentals.

- A natural, sharp or flat next to a numeral below a bass note means that that accidental should be applied to that interval above the bass.



- A natural, sharp or flat by itself below a bass note means that that accidental should be applied to the note a third above the bass.



- A slash through a numeral indicates that that interval above the bass should be raised by a half step.



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5

- A dash below a bass note indicates that the bass note has changed, but the notes above it should not.



7^b —
5

Figured Bass and Inversion Symbols

Our modern inversion symbols come from figured bass notation. Thus, a root position triad has no inversion symbol. We could use the symbol 6-3 for a first inversion triad, but the 3 is assumed to be there already. For seventh chords, all three inversions have a sixth above the bass, so the only one that needs the “6” is first inversion, since it has both a sixth and a fifth. Remember that inversion symbols indicate the intervals above the lowest note, with a few assumptions about what notes will be played.

Realizing Figured Bass

The best way to realize figured bass is to assume “lazy fingers” on the part of the keyboardist. When moving from one chord to the next, move each finger the shortest distance possible so that all the needed pitches are played. But—the rules of counterpoint still apply, so avoid parallel fifths and parallel octaves. The result should be smooth lines that make the harmony clear and don’t interfere with the melody.



From Figured Bass to Rootedness

When the concept of “rootedness” began to take shape in the 18th century, the figured bass symbols were adapted to become our modern inversion symbols. It is, then, possible to look at a figured bass and understand a great deal about the harmonies that it implies.

Figured Bass Symbol	Chord Inversion	Modern Inversion Symbol	Comments
None	Root position triad	None or $\overset{5}{3}$	No symbol, since it is the most common possibility
6	1 st -inversion triad	6	
$\overset{\flat}{6}$	1 st -inversion triad	6	A raised sixth above the bass is often a leading-tone, usually the root of a vii° in minor.
$\overset{6}{4}$	2 nd -inversion triad	$\overset{6}{4}$	
$\overset{5}{3}$	Root position triad	$\overset{5}{3}$	This symbol generally appears when the chord changes but the bass doesn't, as in the second chord of a cadential $\overset{6}{4}$
4	“sus-4”	No equivalent	A solitary 4 is usually followed by a 3 sometime before the bass changes, representing a suspension and its resolution.
7	Root position seventh chord	7	Adds a seventh to a root position triad. A 7 followed by a 6 without a change of bass may also indicate a suspension and its resolution.
$\overset{6}{5}$	1 st -inversion seventh chord	$\overset{6}{5}$	The third remains the same. A raised sixth often indicates a leading-tone seventh chord.
6 4 3	2 nd -inversion seventh chord	$\overset{4}{3}$	No chord in common practice has a fifth, fourth and third above the bass, so the inversion symbol assumes the sixth instead of the fifth. A raised sixth often indicates a V chord in minor or a secondary dominant.
6 4 2	3 rd -inversion seventh chord	$\overset{4}{2}$	As with 2 nd -inversion, a sixth instead of a fifth is assumed. Raised fourth often indicates a V chord in minor or a secondary dominant chord.